a W. R. C. Smith publication

Textile Industries

Formerly "COTTON"

APRIL, 1955

Highlights

Executive Section 89-104
New Equipment Section 209-226

1955 KNITTING SHOW . 161-191
(Special Section)

Too Much Labor Turnover? . . 105

Cut Spinning Cleaning 108

Design to Sell! 112

Double Duty Tenter 115

How Vat Dyes Affect Cotton 116

America's Textile Schools . . 121
(6-page pull-out chart)

Use Whirolls to Get Fancy 127

Single vs. Double Roving 130

Look After Those Switches . . 132

Measure Drafting Force 134

Cotton Research Clinic 138

For Uniform Woolen Yarn . . . 149

The Tariff—What and Why . . 153

Complete contents on page 3

20 YEARS of PROGRESSIVE
Air Conditioning* SERVICE
to the
TEXTILE INDUSTRY

With skill, know-how, and vast experience gained from 20 years of specialization in furnishing humidification and air conditioning equipment to the textile industry, Air-Perme-Ator offers the finest equipment to meet every requirement.

Operating on the principle of molecular suspension, protected by exclusive Kohut patents, Air-Perme-Ator units—from the smallest warp conditioner to complete plant installations—are your assurance of maximum efficiency at lowest possible operating costs.

AIR-PERME-ATOR offers units for every use—from yarn storage to finished fabric.

It will pay you to consult Air-Perme-Ator first

See AIR-PERME-ATOR units in operation at the KNITTING ARTS EXHIBITION, Atlantic City, N. J. April 25-29. Booth Nos. 46-47-48.

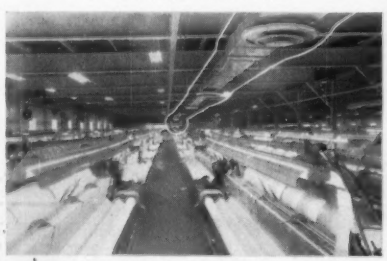
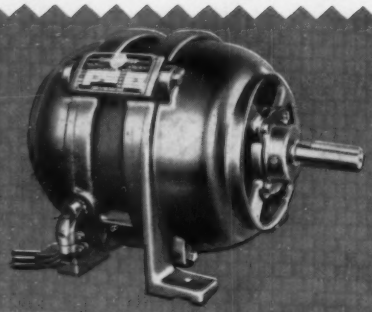


Photo Courtesy Bangor Mills, Pen Argyl, Pa.

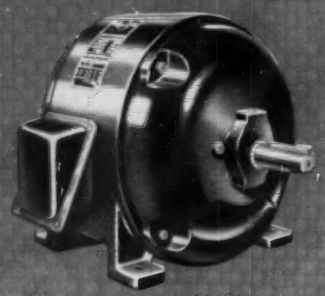
AIR-PERME-ATOR MFG. CO.
"Dry" Humidification System
300 Preakness Ave., Paterson 2, N. J.

*HUMIDIFICATION—DEHUMIDIFICATION
—COOLING—AIR FILTERING—
—AIR CHANGING—HEATING

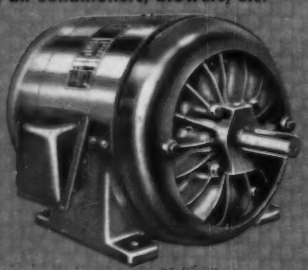
for every textile application



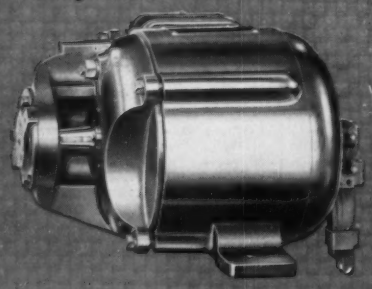
FOR LINT-FILLED ATMOSPHERES *specify* **a DIEHL Type "DIT" Lint-Free Motor. In all mill operations where fly is present, the special construction of this motor assures protection and long life. Special features—rigid end cover construction and Hyatt roller bearing at pulley end.**



FOR GENERAL MILL APPLICATION *specify* **a DIEHL Type "DI" Standard Motor. An economical and versatile power plant, it is adaptable to compressors, pumps, conveyors, air conditioners, blowers, etc.**



FOR FINISHING AND DYE PLANTS *specify* **a DIEHL Type "DIF" Totally Enclosed Fan-Cooled Motor. Complete protection of the internal parts is provided by a full enclosure; high efficiency is aided by the cooling effect of the large external fan.**



FOR DRIVING LOOMS *specify* **a DIEHL Power Transmitter. The construction and "built-in" inertia of this integrated unit permit maximum weaving speeds with greatest operating efficiency.**

SPECIFY A DIEHL MOTOR!

These are only a few of the many types of general and special-purpose motors DIEHL offers to satisfy every mill requirement. Over 68 years of motor building experience makes DIEHL motors your best buy!

Diehl

DIEHL MANUFACTURING COMPANY
Electrical Division of THE SINGER MANUFACTURING COMPANY
Finderne Plant, SOMERVILLE, N. J.

Please send me the following bulletins:

- ☐ New Type "D" Motor Bulletin No. TI-3304
- ☐ Consolidated Motor Catalog and Price List No. TI-3310
- ☐ Power Transmitter Bulletin No. TI-3126

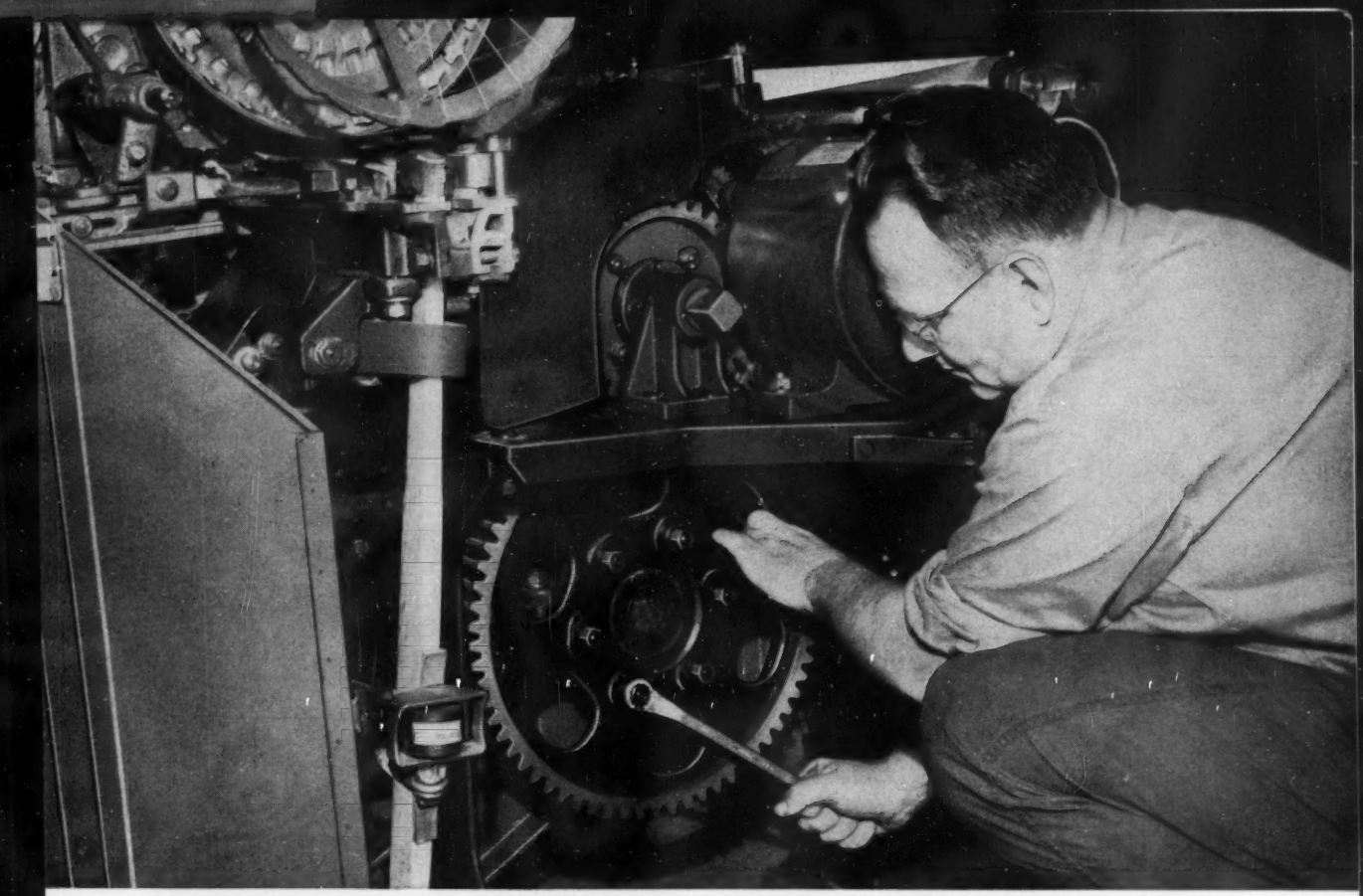
Name_____

Company_____

Street_____

City_____ State_____

AVAILABLE IN A WIDE RANGE OF TYPES AND SIZES



HERE IS A LABOR SAVING PRODUCT

. . . this is evident when you compare these photos. The new Cam Shaft Gear and Hub assembly illustrated is just one of many new Draper constructions, designed to *lower costs* and *increase profits*.

It is this continued effort to "make it better", that has made Draper products the accepted standard in leading mills through-out the world.

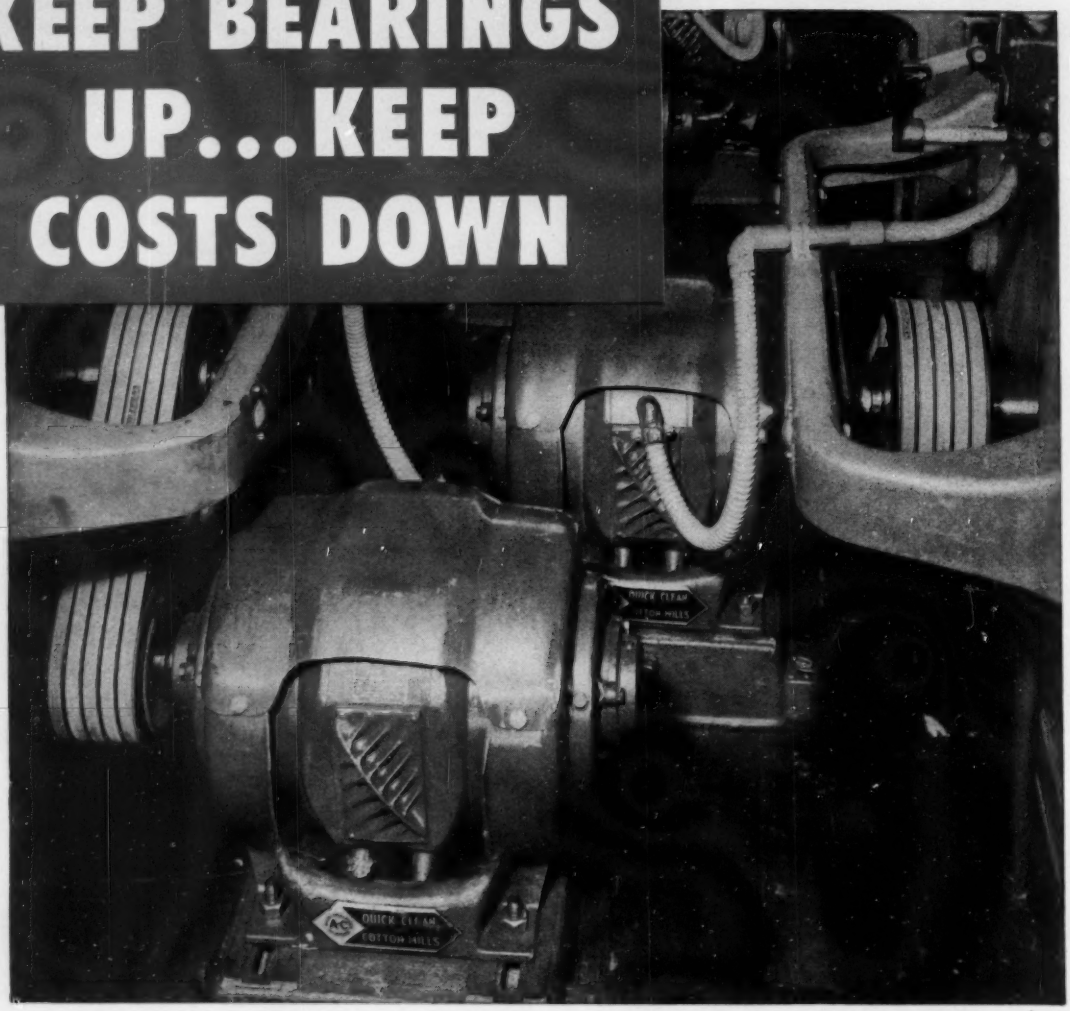
Save time and money by using the *right repairs* on Draper looms . . . Draper repairs.

DRAPER CORPORATION

HOPEDALE, MASSACHUSETTS

ATLANTA, GA.
GREENSBORO, N. C.
SPARTANBURG, S. C.

KEEP BEARINGS UP... KEEP COSTS DOWN



WITH *Texaco Regal Starfak,* you'll find that high-speed, grease-lubricated, anti-friction bearings last longer, operate more efficiently. It keeps power consumption low, too, and maintenance costs at their minimum. That's because *Texaco Regal Starfak* does not "drag"— and *stays in* the bearings to assure top protection under the severest conditions.

Texaco Regal Starfak is a premium-quality lubricant. Its resistance to oxidation, separation and leakage is outstanding—much higher than ordinary greases. In addition, *Texaco Regal Starfak* retains stability both in storage and service . . . is heat resistant and performs well at high operating temperatures.

For top roll and loom lubrication, use *Texaco Stazon.* It won't splatter, creep or drip. For fibre conditioning, use *Texaco Texspray Compound.* It assures smooth, strong, uniform yarn.

Throughout your mill, a Texaco Lubrication Engineer can help you keep efficiency high and maintenance costs low. To learn how, just call the nearest of the more than 2,000 Texaco Distributing Plants in the 48 States, or write:

☆ ☆ ☆

The Texas Company, 135 East 42nd Street, New York 17, New York.

TEXACO

TEXACO Lubricants

FOR THE TEXTILE INDUSTRY

TUNE IN: TEXACO STAR THEATER starring JIMMY DURANTE or DONALD O'CONNOR, on TV Sat. nights. METROPOLITAN OPERA radio broadcasts Sat. afternoons.

NBP BPA

Textile Industries

Formerly "COTTON"

Vol. 119, No. 4
April, 1955

CONTENTS

Copyright 1955 by W. R. C. Smith Publishing Co.

Additional Items

Management

Denim Mill Executives, Listen to This! 97
"Director of Physical Distribution" Post Recommended 111
Inter-Industry Labor Mobility 120
National Right to Work Committee 137
New Handling Systems to Highlight Materials Handling Conference 145
Is There to Be a New Textile Industry? 151

Cotton

Problems in Piecing Up a Lap 199
How to Re-Cover Card Clearer for Longer Wear Life 201
Easy Way to Secure Loom Lay End Plate 201
How to Keep Sides of Picker in Alignment 205
Device Makes Card Fly Spinnable 214

Synthetics

Here's a "Stainproof" Room for Growing Families 110
Dry Cleaners' Static Problem Solved 137
Running Dacron? Watch These Points 195
How to Improvise a Drag Roll for XD Looms 197

Wet Process

Dual Saturator for Wet Processing 211
New Resins Minimize Yellowing and Strength Loss 213
Yarn is Dried from Core Out on this Slasher 214
Convert Dry Cans to a V-Belt Drive 216

Knitting

These Simple Knitting Hints Saved Money 201
Board 200 Dozen Pairs in 8 Hours 217
Wrapping Machine Specially Designed for Knit Goods 220
Pneumatic Inspection Machine for Seamless 221

DEPARTMENTS

Shorts and Remnants 4
Personal Notes 26
What the Textile Mills Are Doing 58
News in Brief 89
An Executive Views the News in Textiles 101
Future Events 103
How Other Men Manage 195
New Equipment and Materials 209
Helpful Booklets Free 229
Suppliers' News 249

Features

		SPIN-WEAVE	WOOL	SYNTHETICS	WET PROCESS	KNITTING
Too Much Employee Turnover?	105	•	•	•	•	•
Cut Spinning Cleaning Costs with Frame and Floor Cleaners	108	•				
Design to Sell! (How Bachmann Uxbridge Makes Samples)	112		•			
A Double-Duty Tenter	115				•	
How Vat Dyeing Affects Cotton	116				•	
America's Textile Schools	121	•	•	•	•	•
Get Fancy Effects with Rubber Hose Around Whiprolls	127	•				
Single vs. Double Roving	130	•				
It Pays to Properly Maintain Switches and Starters	132	•	•	•	•	•
Instrument Measures Drafting Forces (Research Findings, No. 17)	134			•		
Cotton Examines Its Research Program	138	•				
For Uniform Woolen Yarn, It's Good Start—Good Finish	149		•			
The Tariff—What and Why	153	•	•	•	•	•
Knitting	161-191					•
April 25-29 Will Be Knit Goods Week in Atlantic City	161					•
Directory of Exhibitors, 1955 Knitting Arts Exhibition	162					•
Knitter Hints No. 41 ("Cold" Boarding)	184					•
3-in-1 Finish	185				•	•
Merchandising—Form a Sound Basis for Product Development	186					•
Needle Service Records	188					•
New Equipment	217					•

General and Technical

Do Your Employees Know What Fringe Benefits Cost?	110	•	•	•	•	•
Solving Spinning Problems with Nylon on Worsted System	114		•	•		
1/3 Rayon- 2/3 Cotton Blend Performs Well in Work Clothing	128	•		•	•	
Moisture Applied Close-Up	158	•				
Tips for Processing Arnel	190			•		
To Eliminate Air Storage Tanks, Use Large Air Lines	199	•	•	•		
"Two-Way" System Prevents Mixed Filling	205	•				
Easy Way to Increase Drying Surface of Slasher Cylinders	207	•				

EDITORIAL AND EXECUTIVE OFFICES: 806 Peachtree St., N. E., Atlanta 5, Georgia

John C. Foxville.....*Editor*

Associates

J. Frank Guest—George H. Dockray—D. Williams

Milton C. May *(P. O. Box 441, Kings Mountain, N. C.)*

Leon E. Seidel *(22 East 93rd St., New York 28)*

J. A. Moody.....*Production Manager*

John C. Cook.....*Business Manager*

Walter M. Mitchell, Jr.....*Advertising Manager*

Business Representatives in U. S. A.

BOSTON—Arthur C. Shaw, *27 Southgate Rd., Wellesley 81, Mass. (Phone: Wellesley 5-3648).*

NEW YORK—William K. Hoffman, *58 Euclid Ave., Maplewood, N. J. (Phone: South Orange 2-2484).*

PHILADELPHIA—George Isherwood, *590 Rutherford Dr., Springfield, Pa. (Kingswood 30760).*

CHICAGO — A. C. Peterson, *333 North Michigan Ave., Chicago 1, Ill. (Phone: Central 6-6964).*

CLEVELAND—A. E. C. Smith, *P. O. Box 3054, Cleveland 17, Ohio (Phone: Cherry 1-7352).*

PITTSBURGH-BUFFALO AREA—J. D. Parsons, *39 Atlantic Ave., Cohasset, Mass. (Phone 4-0712).*

CHARLOTTE—W. Cliff Rutland, *Box 102, Gastonia, N. C. (Phone 7995).*

LOS ANGELES—L. B. Chappell, *810 So. Robertson Blvd., Los Angeles 35, Calif. (Crestview 4-5151).*

TEXTILE INDUSTRIES is published monthly at 116 E. Crawford St., Dalton, Ga., by W. R. C. Publishing Company, Dalton and Atlanta, Ga., U. S. A. W. J. Rooke, chairman of the board; R. P. Smith, president. Executive and Editorial Offices: 806 Peachtree St., N. E., Atlanta 5, Ga.

Subscription Rates: United States and Possessions, $2.00 for one year; Canada, South America, Central America, $2.00 per year; Foreign Countries, $5.00 per year.

Entered as second-class matter at the post office, Dalton, Georgia, under the Act of March 3, 1879.

Now TWO plants to serve you. Prompt delivery by our own fleet throughout the South and Southwest!

TEXTILE PAPER PRODUCTS, INC.

Cedartown, Georgia • Crossett, Arkansas

★ ★

For quick delivery of tubes...

Overnight to practically any mill in the South and Southwest. Let's get together and set up a delivery schedule that fits right in with your production schedule. Telephone, write or wire!

Look to TEXTILE PAPER PRODUCTS

★ ★ ★ ★ ★ ★ ★ ★

Manufacturers of better

Convolute and Spiral Wound Cloth Tubes

Carpet and Rug Cores

Yarn Tubes

Cloth Winding and Baling Boards

Beaming and Carlining Paper

Shorts and Remnants

by J. C. C.

► April issue and one more spring. Spring, spring, beautiful spring. Now I hope our friends in Brazil, Argentina, Australia, etc., won't mind if we wax enthusiastic about good old springtime in the good old U. S. A. Spring, with her golden suns and silver rain. "In the Spring a Young Man's Fancy Lightly Turns To Thoughts of Love."

► There we go getting poetic. All we wanted to say was that April showers may bring May flowers and all that, but also April 1955 brings another Knitting Show. Right this way, ladies and gentlemen, as you will glean from our pages this month, the largest galaxy of knitting machinery, supplies, yarns, and services will be presented for your edification, and we hope your purchase at that good old watering spot, Atlantic City, N. J., April 25-29. Step right up.

► We understand that 207 firms have signed up for space, which must about fill up the Auditorium. In fact, good old TI gave up some space so that suppliers might have more room. So if you feel a little snug when you visit us at Booth 562, remember we are helping give the mill men a break, except what could be more interesting than TI.

► Anyway thanks to our good friends in the knitting trade—that's a right nice knitting section this month. Some new advertisers, some old ones back. We hope you will find this section and other knitting ads in the book of interest. Read them all and tell the advertiser you "saw it in TI." (TI is read by buyers in 80.6% of all of the knitting mills in the U. S. A. with 98% of the machines. That's pretty good, and a lot of folks outside the U. S. A. read it for knitting machinery and manufaciuring help, too.)

► Speaking of the Knitting Show, old S&R visualized quite a bunch of hosiery and underwear pictures coming in, with lots of cheese cake. In fact S&R went pictureless in March just saving up—even made a plea for "cheesecake." Well, not a picture arrived and we wouldn't raid "ye edi-

Photo Courtesy Mohawk Carpet Mills, Inc., Amsterdam, N. Y.

HERE'S WHY

better carpet backsizes are based on CHEMIGUM LATEX

MAXIMUM RESISTANCE to washing and cleaning. Freedom from dusting. Greater strength, flexibility and adhesion. No varnish-lifting tendencies. Excellent aging and resistance to gas fading. Greater resistance to wrinkling, raveling and skidding. Nonsupport of microbial or insectile life. These are the reasons why high quality backsizes for rugs and carpets are now based on CHEMIGUM LATEX.

CHEMIGUM LATEX is an aqueous dispersion of a butadiene-acrylonitrile copolymer. It is an oil-resistant rubber latex of excellent mechanical stability and high acid-salt tolerance. It is attractive in cost compared with competitive types of sizing materials—due to compounding ease, handling economies and ready application with conventional equipment.

Better backsizes are but one use for versatile CHEMIGUM LATEX which, along with other latices by Goodyear, is finding wide application in finishes, sizes, saturants, adhesives and inks for a range of textiles. For details, write to:

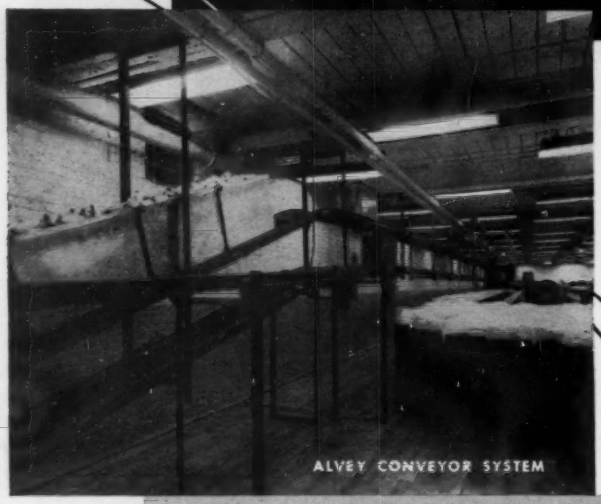
Goodyear, Chemical Division, Akron 16, Ohio

CHEMICAL GOODYEAR DIVISION

Chemigum, Pliobond, Pliolite, Plio-Tuf, Pliovic—T. M.'s The Goodyear Tire & Rubber Company, Akron, Ohio

The Finest Chemicals for Industry — CHEMIGUM • PLIOBOND • PLIOLITE • PLIO-TUF • PLIOVIC • WING-CHEMICALS

TWO-WAY RIDE FOR YOUR BOBBINS



...this double deck ALVEY CONVEYOR SYSTEM carries full bobbins on the top run and empties on the lower run

At Alvey, every conveyor problem is special. Every system is exactly tailored to your particular needs... designed by the conveyor industry's top engineers to reduce costs and speed product handling. An Alvey Engineer is always available. He will visit your plant and evaluate your problem. Write for appointment.

Every time you **MAN**handle a package, you add to the cost and nothing to the value; therefore, put your packages on Alvey Conveyors that are engineered to fit your individual requirements.

ALVEY

ALVEY CONVEYOR MANUFACTURING COMPANY

9306 Olive Street Road, Saint Louis 24, Missouri

138

BRANCH OFFICES IN PRINCIPAL CITIES

Shorts and Remnants

torial files," so we wired Al Rau, Knitting Arts Exhibition:

" . . . PLEASE SEND COUPLE PUBLICITY SHOTS . . .PREFERABLY CHEESECAKE."

By return air mail we get the picture below of the 1953 Knitting Show:

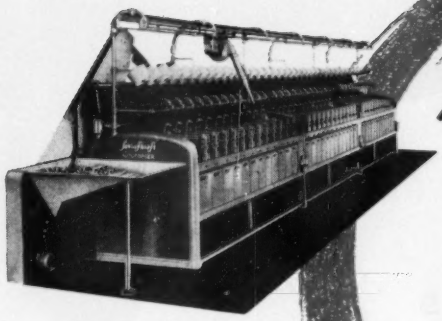
All we can say, Al, is your idea of cheesecake is a little different from ours and we like ours better.

► Maybe Al is trying to get back at us because on page 75 in December, 1954, we headlined "Next Big Show in 1960," referring of course to the American Textile Machinery Exhibition. Now Bertha Green and the Textile Hall at Greenville, South Carolina, won't like that either. They are all big, if you get a large and interested audience, and the Knitting Show looks encouraging from that angle. We will see you there—Booth 562.

► We see from our mail that the Vital Link Organization from West Bridgford, Nottingham, England, will visit the Show to find new representations and items to manufacture in the United Kingdom. Seems the Link is between producer and consumer and comprises the firm of Geoffrey E. McPherson, Ltd. Anyone interested let us know or write American Viscose Corporation, New York.

► While we are still on knitting, **W. A. Hunnicutt,** P. O. Box 106, Mountain View, Georgia, writes to "have sent to me one catalog each of the two (2) most common knitting machines used in the South, Ga. Tenn." Whatever kind of knitting Mr. Hunnicutt wants to do, Mountain View sounds like a right nice place for it.

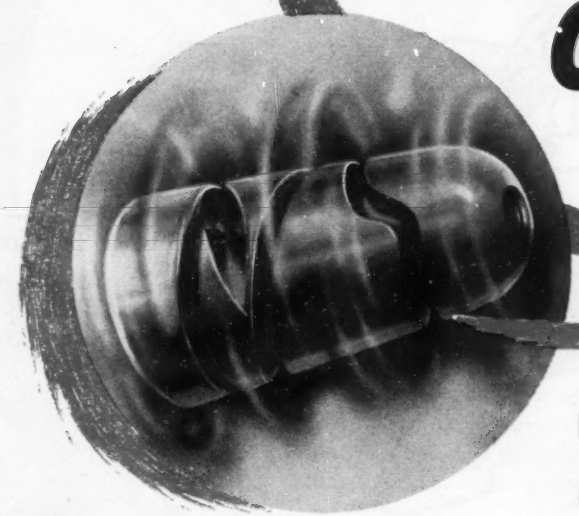
► **Harold W. Birch,** Mgr. Birch Brothers, Inc., Somerville, Mass., wants to know about Case History



The Schlafhorst Autocopser

Autocopser's Exclusive

ROTARY YARN GUIDE



SPEED = *lower investment costs*

SPEED = *higher production*

SPEED + *rotary yarn guide = no yarn guide wear*

SPEED + *yarn guide design = no yarn damage*

SPEED + *quilling know-how = superior filling quality*

makes <u>continuous</u> quilling speeds of 10,500 - 12,000 R. P. M. an actual <u>daily</u> performance in hundreds of mills!

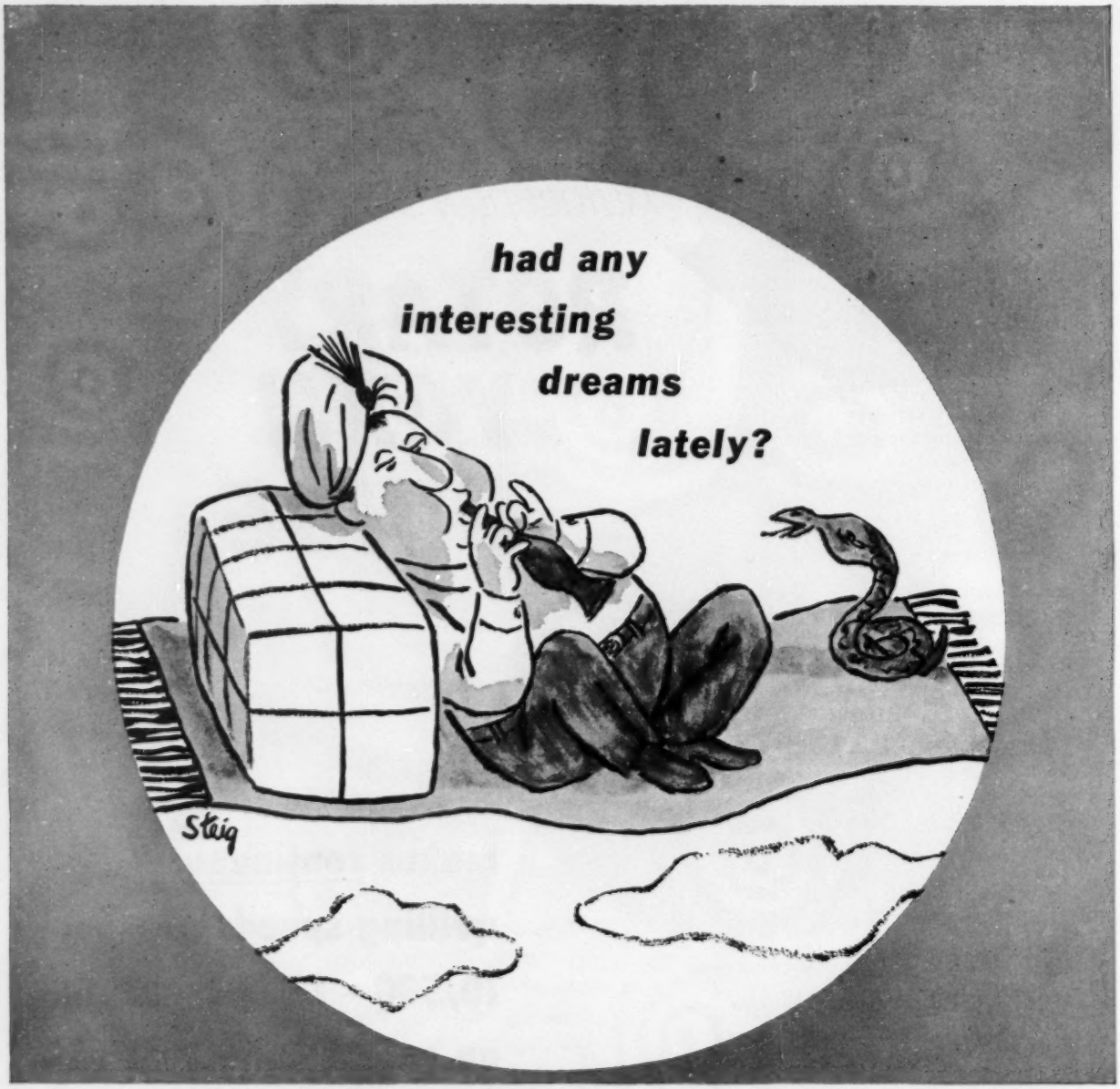
Schlafhorst

AUTOCOPSER

First Name in Automatic Quillers the World Over

Sold and Serviced By

THE TERRELL MACHINE COMPANY, INC., 3000 S. BLVD., CHARLOTTE, N.C.



WILL PUT NEW LIFE IN YOUR PRODUCT

9 CHANCES OUT OF 10, the NEW Nylon Staple by IRC can make your dream of a new product, or product feature, come true. Here's why.

It's completely and entirely *new*—with a new brighter-than-bright luster that creates sheen without shine... a new crimp that can come up with new effects... it dyes quicker, deeper, with more absorbency *and* economy. You can get new resistance to abrasion with it, better spring-back, new strength with finer yarns. All adding up to greater economy and higher quality for you!

And you can expect the NEW Nylon Staple by IRC to give you the same cost-cutting uniformity and performance that industry has come to expect of IRC rayon yarns.

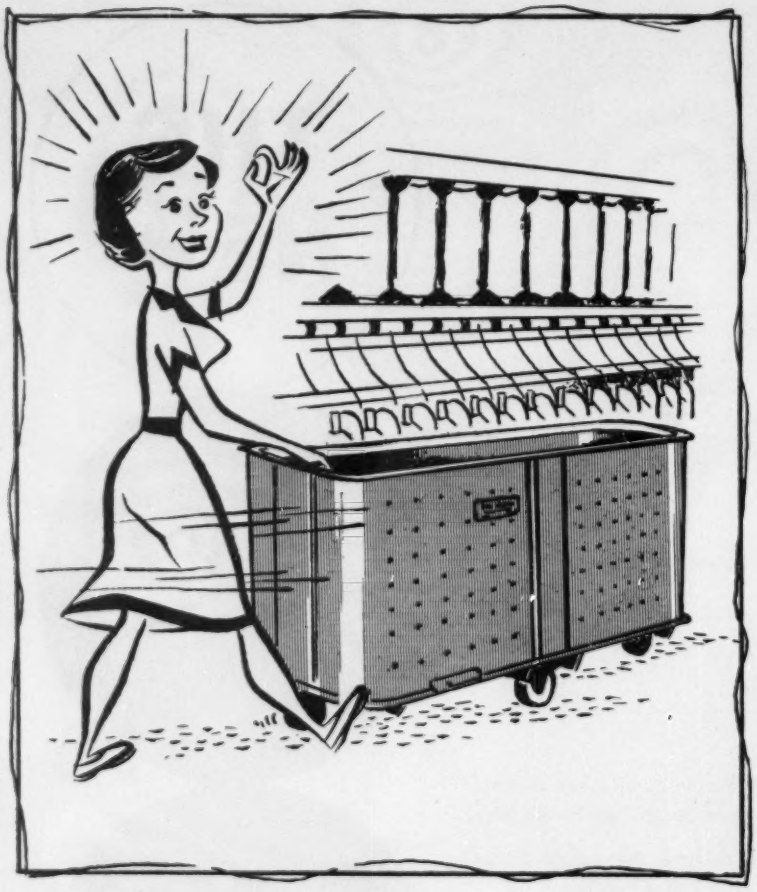
...BRING NEW PRODUCTS TO LIFE!

- **NEW LUSTER • NEW DYEABILITY**
- **NEW CRIMP • NEW ABRASION CHARACTERISTICS**
- **NEW RESILIENCY WITH LESS CRUSHABILITY**
- **NEW STRENGTH ... AND NEW ECONOMY FOR YOU**

I·R·C

Industrial Rayon Corporation

Sales Offices:
500 Fifth Avenue, New York 36, N. Y.
627 Guilford Building, Greensboro, N. C.



FISHER ALUMINUM CONDITIONING TRUCK

Made to provide great strength and durability with light weight, our Aluminum trucks will be designed to meet your specific needs. Bottoms are slatted with reinforced Aluminum angles, enabling carrying heavy loads, yet making it easy to keep the truck clean.

The style illustrated above is punched for steam-conditioning use. Tell us your requirements, and be sure of our interest and cooperation.

Representatives: **Carolina Supply Co., 35 W. Court St., Greenville, S. C.**
Textile Specialty Co., Box 1297, Greensboro, N. C.
J. W. Davis, 122 Dillingham St., Columbus, Ga.
Thos. A. Davis, 412 Swift Bldg., Columbus, Ga.

FISHER MANUFACTURING CO.
MATERIALS HANDLING EQUIPMENT. TEXTILE
BOX 244 · HARTWELL, GEORGIA

Shorts and Remnants

44 (Feb. '55) regarding a speed reducing attachment manufactured by Southern Textile Machinery Company. Sounds funny — Southern Textile Machinery Co. manufactures the SOTCO Looper, etc., and has served the knitting trade for years, as you will note from their ad in this issue.

► A student from Philadelphia Textile (we sent this one on and didn't take down the name) sent in a return card on a news item on knitting machinery from Morris Speizman Company, Charlotte, North Carolina (also advertising in this issue), and says "Please send prices." Maybe he is going into business.

► Could be—there are more new knitting mills, changes in ownership, etc., in our News Service than all other mills put together (except for tufted textiles); and if you are interested in tufted, look for the Special Section in TEXTILE INDUSTRIES in June.

► **Harry Moses** of Sesom Knitting Mills, Inc., New York, N. Y., writes that a lot of "fuzzy-lint-dirt-dust . . . flies around all over our premises clogging up our knitting machines, all over our walls and plant." He wants a machine that could suction in this dirt and soot and wonders if the "Cadillac Vacuum Machine" pictured in the article "The Man in the White Suit" [Page 111, Jan. '55] could do this job.

► Another good reader, in North Carolina, writes also about this article "The Man In The White Suit," saying he knows the location of the mill involved [Schwarzenbach Huber, Altoona, Pa.] and that "if they draw in all the outside air without intensive filtering that all the precautions they would take would be rather discouraging once the dirt in the air is in the plant."

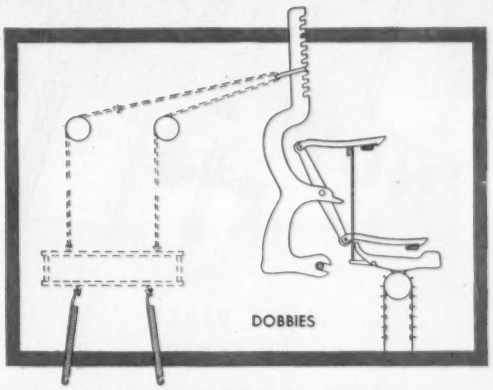
► Yes, Mister, Altoona has smoke, lots of it; but the air conditioning here is equipped with a Precipitron installation—all of which helps keep the suit on the man white.

► The current issue of "Better Living," employee magazine of E. I. Du Pont de Nemours & Company, has an article starting on page 28 on "The Wonderful World of the Business Press." **Charles Culp**, Regional

No. 6 in a series explaining

Why C&K's New Multi-Purpose Looms mean More Profit to any mill

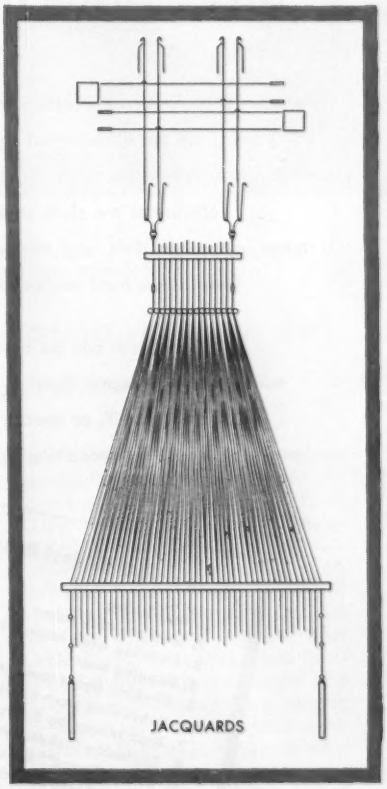
NOW . . . for the first time . . . M-P Makes Possible a choice of 4 SHEDDING MECHANISMS . . . on the same Basic Loom-Frame

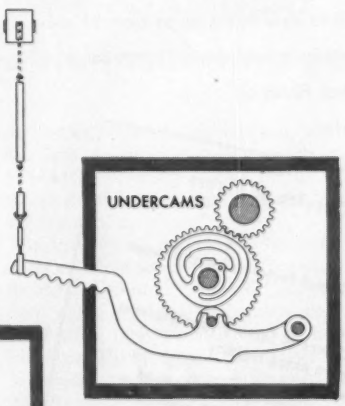


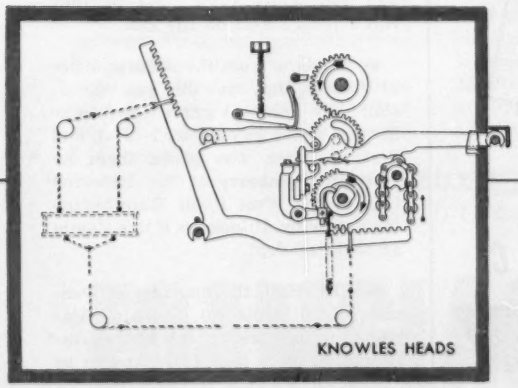
Whichever of these four mechanisms is chosen now, it may be converted later if changing fashion requirements make it necessary.

Here is your range of choice: From the simplest *Undercam* harness motion for 2, 3, 4, 5 or 6 harness work . . . through *Dobbies* with their smooth action for easily fractured filament or other tender yarns, and with capacity up to 25 harness, with high-speed operation . . . and also newly developed 20 and 25 harness *Knowles Head* motions with their distinctive positive shedding . . . to modern high-speed *Jacquards* of French, Fine or Vincenzi index, with 104 to 2640-hook capacity for the ultimate in decorative effects.

This range of choice is sound insurance for *you*. So see C&K today, for the M-P Looms exactly suited to your needs.



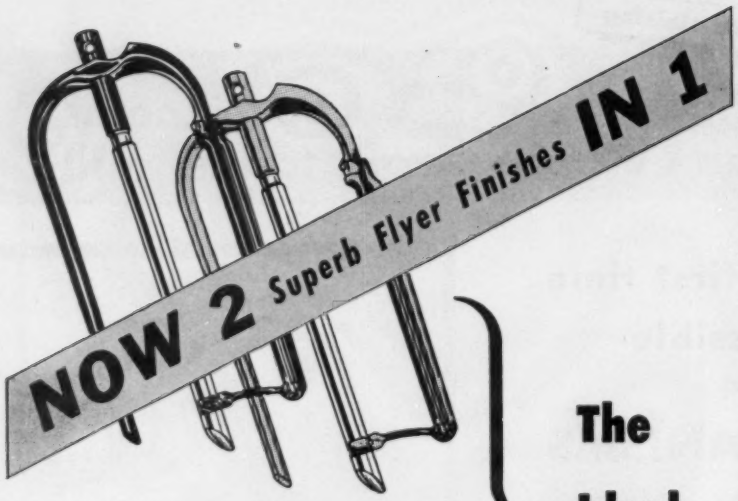




Crompton & Knowles
LOOM WORKS

WORCESTER 1, MASSACHUSETTS, U. S. A.

Charlotte, N. C. • Philadelphia, Pa. • Allentown, Pa.
Crompton & Knowles Jacquard & Supply Co., Providence, R. I.
Crompton & Knowles of Canada Limited, Montreal, Quebec



RCK BLACK
(rust preventive)

IDEAL GOLDFLYER FINISH
(anti-tagging)

= The Ideal Finish*

This new Ideal Finish for pressers and flyers combines the time-proven rust-resistant qualities of RCK Black and the smooth-as-glass Ideal Goldflyer Finish which practically eliminates the slubs and doublings caused by tagging-up in noses, eyes, and slots, and choking-up of hollow legs. The Ideal Finish is the most serviceable finish ever offered to textile mills.

Ideal Finish can be applied to new flyers or as part of Ideal's matchless Flyer Repair Service. Send us a half-dozen flyers for a test in your mill, or specify Ideal Finish on your next repair or reconditioning order.

Here's the Full Ideal Repair Service on Flyers

1. Re-pinning
2. Straightening noses
3. Swaging worn barrels to original factory size and taper
4. Gauging slots
5. Blocking flyers and pressers
6. Rebuilding worn parts of flyers to factory specifications
7. Heat tempering flyers to give extra rigidity
8. Replacing broken flyer barrels
9. Selecto-Speed** balancing for your operating speed
10. Choice of four finishes: Ideal, Goldflyer, RCK Black, or Bright

*Trade Name
**Patented

Ideal Machine Shops, Inc., Bessemer City, N. C.

Continuous Service to Textile Mills Since 1925

Shorts and Remnants

Sales Mgr. for the Finishes Div., thinks that we should be interested in this article on trade and industrial journals which they say totals some 2400 magazines and newspapers.

Judging from the photograph of the Business Publications in which Du Pont advertises, they must use most of them but apparently they only use 400. The only trouble is that one of their fiber salesmen is reading one of our competitive papers and another of our competitive papers is right in the front row of the picture.

We just hope that that is good old TI right up there on the table where the really important papers are. Also, we are pleased to see Du Pont attaching this much attention to their business papers, and we hope they add about 36 pages to their advertising in TI for 1955.

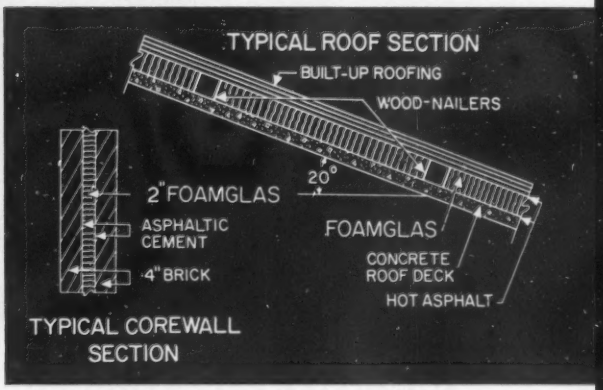
► In case you missed it, we must be going into the livestock business, because a news item in our December issue tells how to spray sheep with plastic and aluminum paint to keep them cool in summer and warm in winter and make better wool. You never can tell what people will think we are interested in.

► An eager beaver from a prominent New York advertising agency thinks that we should use the material sent in on an introduction of a super-duper finish on volume furniture lines at the Chicago and Grand Rapids markets. It's a gal writing it and she says "there's a big story here, and I'd like to work on it with you." They must have us mixed up with a furniture magazine. Sometimes we wonder. We did notice a subscription coming through the other day from "Johnny's Shoe Repair Shop and Hardware Store." Maybe they run a textile mill on the side.

► A memo from the Atlanta office of Vickers, Inc., says that you can install the new Vickers Hydraulic Slasher Drive as easy as 1- 2- 3, and that the idea was given them by **Herman Granberry** of the Research Div. of the West Point Manufacturing Company. It looks as if this should go to TI ad dept.

► **Cliff Hall,** the manager of Danville Yarn Mills at Bon-Air, Alabama, writes asking for further information on a new fiber known as

At left, FOAMGLAS was embedded in hot bitumen between wood nailing strips anchored to concrete deck. Roofing felts were laid parallel with roof slope. Above, workman applies FOAMGLAS with mastic to exterior wall in corewall construction at Augusta mill.



Bates Manufacturing Company, Lewiston, Maine, reports

"We've used and re-used FOAMGLAS because it stays dry for dependable insulating performance"

"We discovered in 1944 that the organic insulation then in place on sawtooth roof monitors at our Lewiston, Maine, mill had failed," reports Bates Manufacturing Company. "Moisture absorption had destroyed its insulating efficiency. We replaced the old insulation with FOAMGLAS because its sealed glass cells are waterproof. We knew insulation that stays dry could be depended on for long-lasting insulating performance. We have had no moisture absorption problem since then . . . and insulation maintenance and replacement have been virtually eliminated. We discovered, too, that the light weight and high strength of FOAMGLAS made it easy for us to secure a satisfactory application on the sloping roof monitors."

Bates' report continues: "Because of its excellent seven-year performance record at Lewiston, FOAMGLAS was used again in 1951 to insulate core walls of a new weave room at our Edwards Division mill in Augusta, Maine. Here again, dependable insulating efficiency was most important . . . to help us maintain constant temperature (70°) and humidity (65%) in the weave room. In a climate where winter temperatures often remain at 10° F., we depend on the sealed cells of FOAMGLAS to guard us against damaging insulation failure."

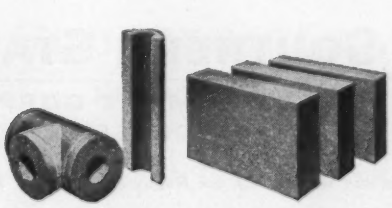
Why not follow the lead of Bates and other leaders in the textile industry? Take advantage of the many benefits you'll get when you insulate with FOAMGLAS, the strong, rigid insulation that stays dry, is fireproof and acid-proof. Send today for a sample and our detailed booklet describing the use of FOAMGLAS to insulate roofs, walls, ceilings and floors.

PITTSBURGH CORNING CORPORATION

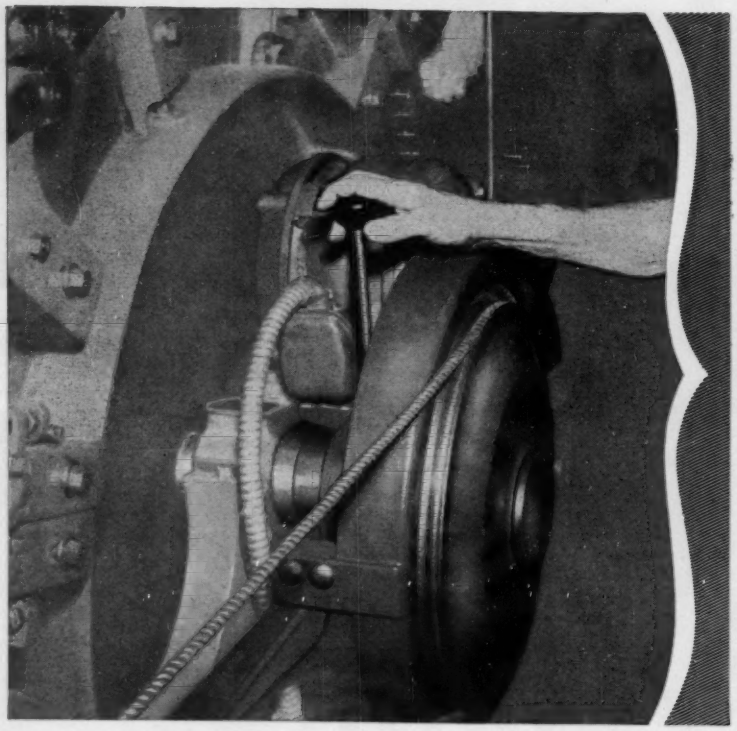
Dept. AG-45, One Gateway Center • Pittsburgh 22, Pa.

FOAMGLAS®

the cellular, stay-dry insulation



Pittsburgh Corning also makes PC Glass Blocks



NO SEPARATE STRIPPING DEVICE OR CHANGES IN PROCEDURE WITH SOUTHERN STATES CARD DRIVES

There is no need to run the risk of costly accidents as a result of changes in operating methods when you install individual card drives in your mill. Southern States has eliminated that problem.

An exclusive feature—a standard-diameter, grooved pulley, built on the main drive—permits stripping in the usual manner. In every case where Southern States Individual Card Drives are used, mills report that stripping is simpler, quicker and safer.

The Southern States Card Drive is priced low enough to fully justify the elimination of old-fashioned lineshafting and belting with their well-known headaches. It is a packaged unit, quickly and easily installed. Mounts directly to card frame. No complicated reduction unit or overhung load on cylinder shaft. Occupies about the same space as a flat-belt drive. Leaves the flats clear and eliminates the danger of springing arches or damage to flats as a result of vibration.

Every month increasing numbers of Southern States Individual Card Drives are going into service. Let our representative show you how they can be made profitable for your mill.

SOUTHERN STATES
EQUIPMENT CORP.
HAMPTON, GEORGIA

Shorts and Remnants

"X-51" and this is being developed by American Cyanamid Company. It's now called "Cyana," Mr. Hall.

► **James W. Callaway** of Columbus, Georgia, apparently wants to buy some seat covers—cotton, he says, because fiber wears out and plastics give you a shock.

► There is plenty of interest in fibers these days as evidenced by the continuing requests for reprints on "Fibers For The Future" from the January issue of TEXTILE INDUSTRIES. First request from Brazil comes from **Cia Rhodosa De Raion S/A,** Sao Paulo. **Whitin Machine Works,** Whitinsville, Mass., liked reprints so much that they ordered more. **Boyd O. Sartell** of Faribault Woolen Mill Company, Faribault, Minnesota, writes that "The Case for Wool" was so well received that they would like to have 25 copies more. We wonder if he tore off the rest of the articles.

► Among other inquires for reprints on this series are **A. N. Anthony,** J. P. Stevens & Co., Inc., New York, N. Y.; **C. T. Guthrie,** Allied Chemical & Dye Corp., Morristown, N. J.; **Charles W. Hock,** Hercules Powder Co., Wilmington, Del.; **Osbert T. Hughes,** Excelsior Mills, Union, S. C.; **S. D. Carter,** American Cyanamid Co., Stamford, Conn.; **S. Ranier,** Trans-Ocean Commerce, Inc.; **Jerome Chaky,** Supt. Dyeing, Beaumont Mills, Statesville, N. C.; **Frederic H. Heidelberg,** National Cotton Council of America, Memphis, Tenn. (heard of it from Montgomery, Ala.); **Francis I. Sullivan,** Hemphill Co., Pawtucket, R. I.; **Earl E. Berkley,** Acco Fiber & Spinning Lab., Houston, Tex.; **Hugh M. Henderson,** Solvay Process Div., Syracuse, N. Y.; **Richard Steele,** Rohm & Haas Co., Philadelphia, Pa.; **A. T. Bacheler,** Westinghouse Electric Corp., Buffalo, N. Y.; **Harvard University** Graduate School of Business Administration; **H. A. Fox,** L-O-F Glass Fibers Co., Parkersburg, W. Va.; **Floyd J. Zanette,** Albany Felt Company, Albany, N. Y.; **Webb Cullington,** Producers Cotton Oil Company of Arizona, Phoenix; **Shirlee Eagle,** American Viscose Corp., Marcus Hook, Pa.; **Stuart P. Browne,** Borg Fabric Div., Delavan, Wis.; **Monmouth Hosiery Mills,** Red Bank, New Jersey; **George E. White,** Treas. Chas.

C. Davis & Co., Chicago; **William B. De Pass,** V. P. Interchemical Corp., Rock Hill, S. C.; **N. D. Commisso,** U. S. Equipment Corporation, Macedon, N. Y.; **Joseph Klumpp Company,** Philadelphia, Pa.; **Klug Engineering Service,** Los Angeles, Cal.; **W. E. Brabson,** Assistant Buyer, E. I. Du Pont de Nemours & Co., Martinsville, Va.

► A letter from **Al J. Morse,** V. P. Coats & Clark, Inc., Toccoa, Ga., states that they were very much pleased with the February story on their new finishing plant. **W. H. Bowen** of the Atlanta branch of this company called to get additional copies for one of their English principals visiting here to show him how we handle such things in the U.S.A.

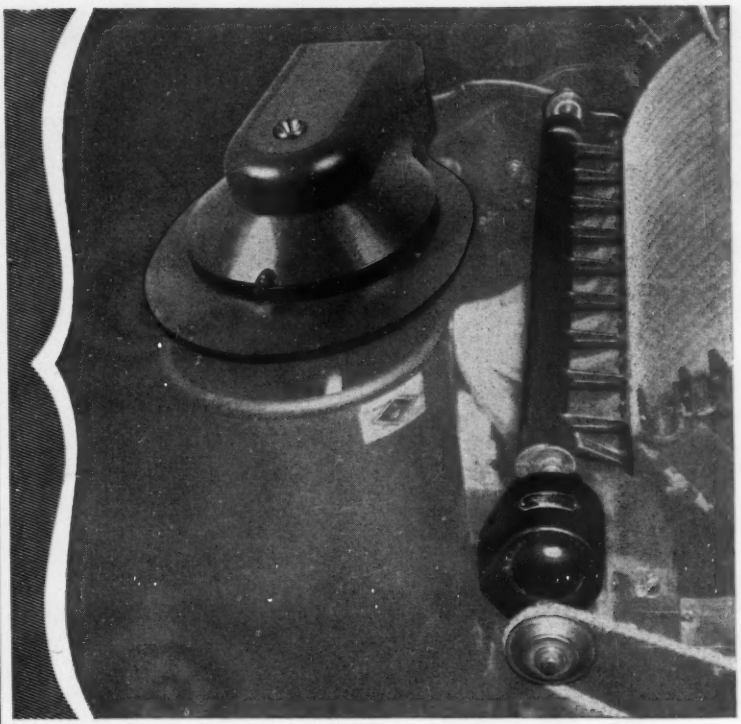
► Since we carried an item last month regarding textile prospects as outlined by one of the principals of a major factoring organization, we might as well go ahead and quote a recent speech of **Edward F. Skinner,** V.P. Meinhard & Company, Inc., New York, N. Y., who says "The textile people are putting up a good fight for a bigger share of the consumer dollar, and they are backing up their fight with the development of new and improved fibers and fabrics in new and exciting colors and finishes."

► If anybody is interested, a mailing by American Cyanamid Co. contains among other items just as useful, one stating that three gas balloons, the same size, are released simultaneously on a clear day. They are colored red, yellow, and blue and they want to know which disappears from sight first, second, and last. If you stand on your head you may read that the blue balloon would disappear first, then the red, and then the yellow. This probably comes under the head of scientific information.

► Just as interesting to us is a notation on one of the return cards for booklets and new equipment information from **George A. Hunters, Jr.,** Coats & Clark, Inc., Pawtucket, R. I., who says "See You On Peachtree on June 20-25." We don't know what comes off on that date, but we will be here.

► Deep down in a desk, where we keep miscellaneous information and which we are going to clean out some day, we put an item about all the wonderful textile machinery developed by the Russians. We won't need it any more. A current news item from Moscow states that an

(*Continued on page 22*)



SOUTHERN STATES NOW OFFERS A FOUR-WAY COMBINATION TO BETTER CARDING OPERATIONS

No mill need put up with hot, leaky, rattling comb boxes, hard-to-align comb blades with distorted fingers, out-dated off end bearings, or antiquated coilers with small cans. Not when Southern States has a four-way answer to all of those problems and at prices every mill can afford!

One. Ball-bearing, sealed-for-life Comb Boxes that operate smoothly, quietly and never run hot.

Two. New Aluminum Comb Stock with solid blade support. Light in weight, yet more rugged than conventional steel. End journals of steel simplify balancing and assure long life. True alignment is easy. No distortion between fingers.

Three. Vibrationless Off End Stand. Pre-lubricated sealed bearing eliminates oiling. Mounts either right or left hand.

Four. Universal Coiler Head for 14- or 15-inch cans for use on any make coiler. Simplified design. Cut tooth gears and oilite bearings throughout.

These Southern States units will bring vastly improved carding operations to your mill and cut operating costs. Facts and figures, based on case histories, will prove how they pay for themselves in record-short time. Let our representative give you the details, or write us direct.

SS® **SOUTHERN STATES**
EQUIPMENT CORP.
HAMPTON, GEORGIA

METRO-ATLANTIC'S

DACRO-DYE

The Most Efficient DACRON DYEING Assistant Ever Offered!

DACRO-DYE

For Higher Color Values and Economies in DACRON DYEING

DACRO-DYE

For Fuller and More Even Shades in DACRON DYEING

DACRO-DYE A newly developed "carrier" for dyeing Dacron polyester fiber with dispersed type dyestuffs. Free flowing, self-emulsifying. Easy to apply. Extremely economical.

Complete Technical Information on Request.

Mill Runs Arranged At Your Request and Convenience.

METRO-ATLANTIC INC.

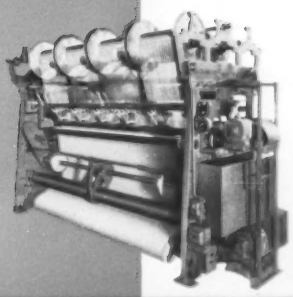
MANUFACTURERS OF CHEMICALS, DYES AND INTERMEDIATES

CENTREDALE 11, RHODE ISLAND

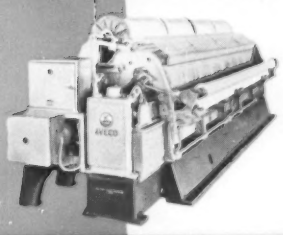
OFFICES AND WAREHOUSES: GREENVILLE, S. C., PATERSON, N. J. • CANADIAN BRANCH: GRANBY, QUEBEC

IMPORTED DYESTUFF SPECIALTIES: FARBWERKE HOECHST AG, WEST GERMANY

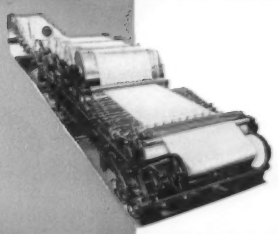
Kidde



RASCHEL KNITTERS

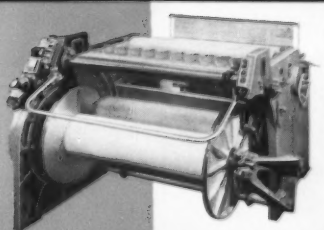


TRICOT KNITTERS



SLASHERS

CREELS



WARPERS

Produce better fabric faster . . . with the world's most advanced machines

Here is a line of machines that you can run in continuous three-shift operation at peak speeds . . . *without unexpected interruptions for repairs.* Kidde knitting machines have always operated at speeds equal to or higher than competitive machines. More important, Kidde machines convert these high speeds into marked production increases. This is because they are built to run fast with next-to-no down time.

The same is true of the Kidde-Johnson slasher, and Kidde-Sipp warpers and creels. All this equipment offers special operating advantages that make it the most advanced textile machinery in the world. But above all, it is the built-in ability to keep running smoothly on exacting production schedules that . . . in less than ten years . . . has made Kidde machines the first choice of the world's leading textile producers.

KIDDE MANUFACTURING CO., INC.
42 Farrand Street, Bloomfield, New Jersey

Kidde-KNITTER

RASCHEL TYPE

KNITTING MACHINE

The Kidde Knitter is the most widely used Raschel type machine in the world. It knits elastic fabric for corsets and girdles, tulle and various types of net, lace and lace edgings, shoe cloth, laundry nets, sport shirtings, carpeting and many specialties.

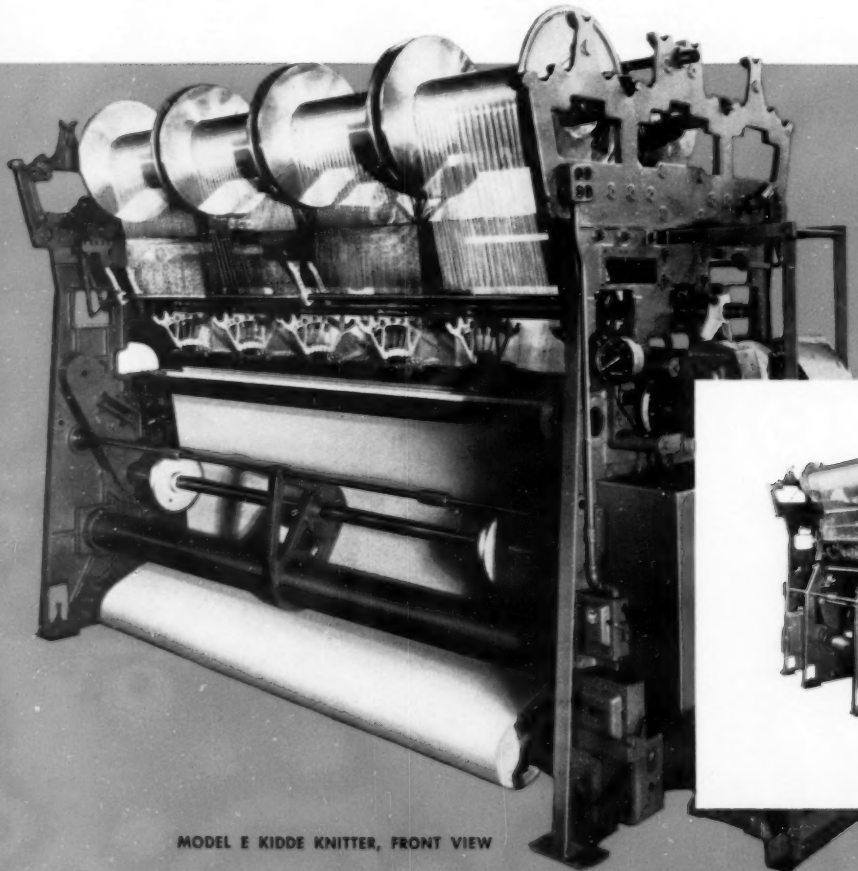
It's fast. Many mills run their Model E Kidde Knitters at 500 courses per minute or faster on two guide bar fabrics and 400 courses or better on elastic with four bars. This new machine produces more than 50% more fabric per hour than earlier models.

It's versatile. Today, the Model E can be equipped with from two to six guide bars, and will be available with up to fourteen in the near future. Its range of gauges will produce anything from the sheerest tulle to coarse carpet fabric. And special attachments make it even more versatile. A sinker bar produces tighter stitches and eliminates selvage troubles. A power let-off attachment for controlling rubber beams improves quality of elastic fabrics. A power yarn feed assures uniform quality at high speeds and permits the use of large warps.

Standard width is 100 inches; machines can be made wider on order. They can be equipped with 14-inch or 21-inch diameter sectional spools or with beam flanges for full width warping. Pattern wheels or pattern drum and chain links are optional with the purchaser.

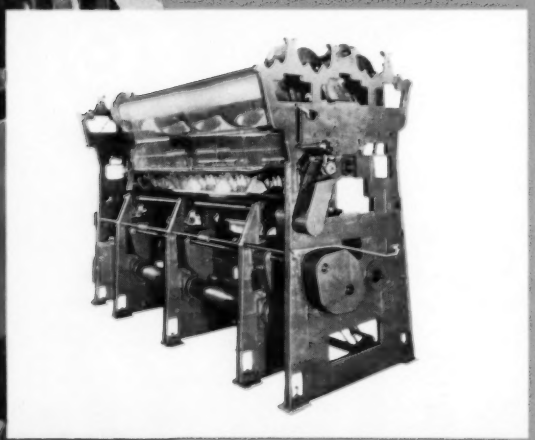
It's sturdy. Besides its two end frames, the Model E Kidde Knitter rests on three intermediate frames that provide solid support for the needle mechanism and guide bars. Guide bar swing is actuated by sets of cams at each end of the machine. All cams are totally enclosed and run in oil baths.

It's compact. Length: 140 inches. Height: approximately 90 inches. Width: approximately 65 inches. Weight varies from 7200 pounds to 9000 pounds, depending on equipment.



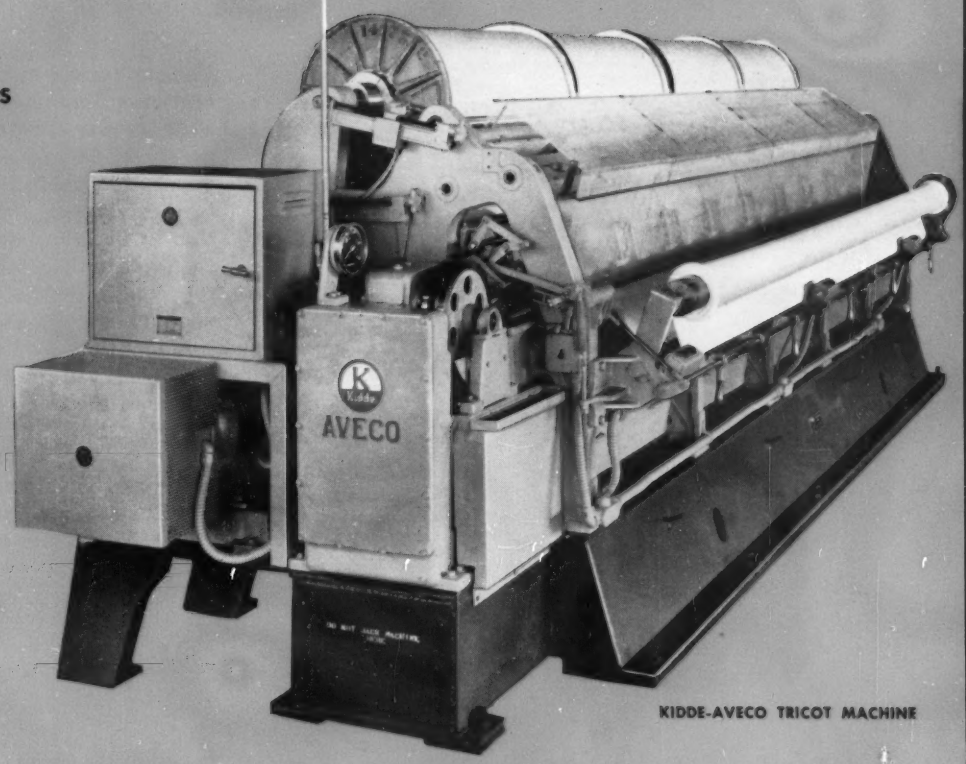
MODEL E KIDDE KNITTER, FRONT VIEW

- **SPEEDS OF 500 COURSES PER MINUTE OR BETTER**
- **TWO TO SIX GUIDE BARS**
- **100-INCH KNITTING WIDTH (OR WIDER)**
- **EASY AND QUICK TO SET UP OR CHANGE OVER**



REAR VIEW

- **600-COURSE SPEEDS**
- **MODELS FOR 2-BAR AND 3-BAR FABRICS**
- **HEAVY, RIGID CONSTRUCTION**



KIDDE-AVECO TRICOT MACHINE

Kidde -AVECO

HIGH SPEED

TRICOT MACHINES

Two models of the Kidde-Aveco tricot machine—the Model E high-speed 2-bar machine and the new Model F convertible 3-bar machine—provide a range of speeds and adaptability to handle all types of tricot fabrics.

High knitting speeds. The Model E 2-bar machine is currently producing at speeds of 600 courses and better. The Model F convertible will do 500 courses when fitted with two guide bars, and can be run over 400 courses per minute on 3-bar fabrics.

Knitting width is 168 inches. Machines are available in 28 or 32 gauge with butted or leaded needles, and can be equipped for either 14-inch or 21-inch diameter sectional spools. High starting torque motor and "quick stop" provide fast acceleration and deceleration to reduce stop marks.

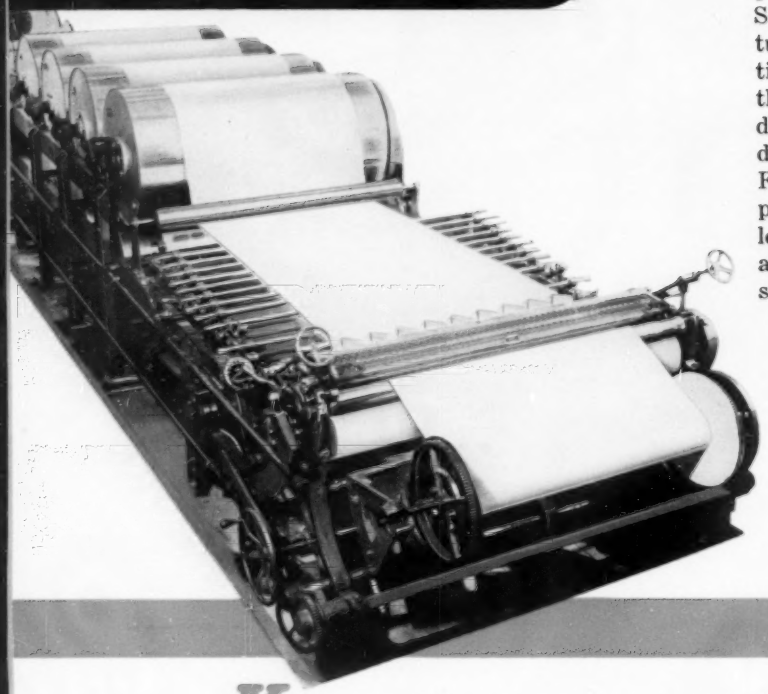
Easy change-over with convertible machine. The Model F can be changed from 2-bar to 3-bar operation without changing cams. Pattern drum drive with chain links is standard on the Model F, while pattern wheel drive is supplied on the Model E. Both models can be ordered with either type of drive, however. All cams are oversized for maximum resistance to wear, and operate immersed in oil.

Ruggedly built for trouble-free service. Both models of the Kidde-Aveco tricot machine are built with solid rigidity. Heavy base provides a firm foundation. One-piece cast girder maintains machine alignment. Each model weighs approximately 12,000 pounds.

Dimensions. Length: 19 feet 2 inches. Width: 5 feet 5 inches. Height: 5 feet 11 inches.

Kidde-JOHNSON

WARP SIZER



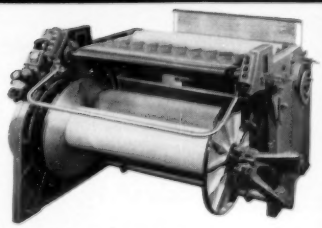
Famous for dependable, around-the-clock operation without breakdowns, Kidde-Johnson slashers give you precise control of size temperature, drying heats, speeds and stretch. Superpress quetsch provides uniform moisture extraction: there's absolutely no variation in the amount of size from one end of the warp to the other, no streaks from uneven drying. Visual stretch indicator reveals the degree of stretch as the warp passes through. Fingertip controls regulate stretch, making possible even stretch through the entire length of the warp or series of warps. Available with 5, 7, 9 or more cylinders for either silk or cotton system warping or combinations of both. Stainless steel size box, immersion, quetsch and idler rolls, and cylinders. Adjustable width beam carriages.

Kidde-SIPP PREPARATORY MACHINERY

Magazine warping creel

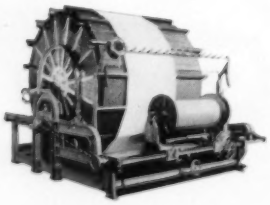
Any number of ends you need, magazine or nonmagazine, yarn delivery from the inside or outside: there are no limits to the variations available to you with Kidde-Sipp creels. Package holders take cones, spools, tubes or pirns. Tensions available include washer type, revolving pulley type, or the Kidde Tension Compensator. All have built-in stop motion.

High-speed cotton system warper



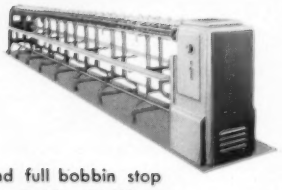
This heavy-duty warper will handle beams with flanges up to 36 inches in diameter. Hydraulic brakes on the beam and on the pressure and measuring rolls assure smooth, quick stops. Constant yarn speeds up to 900 YPM, with infinite variation through the entire range. Separate hydraulic system handles the beam in and out of the warper. Push buttons simplify operation.

High-speed horizontal warper



Warping speeds up to 500 YPM and beaming speeds up to 64 RPM provide the capacity you need combined with flexibility. Rigid construction. Metal reel, cast iron frame. Can be supplied with electric drive or heavy-duty clutch type drive. Available with 83-inch, 93-inch or 101-inch reel widths. Handles loom beams with flanges up to 28 inches in diameter.

High-speed winder-redraw

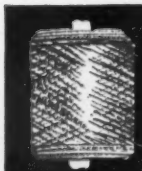


This Kidde-Sipp machine provides high speeds with quick, easy loading and doffing: a flip of the hand doffs a full bobbin. Inserting empty bobbin takes only one hand. Winds from pirns, cakes, cheeses and skeins. Self-threading Alsimag thread guides and full bobbin stop motions. These high-speed units are available with 60 or 120 spindles.

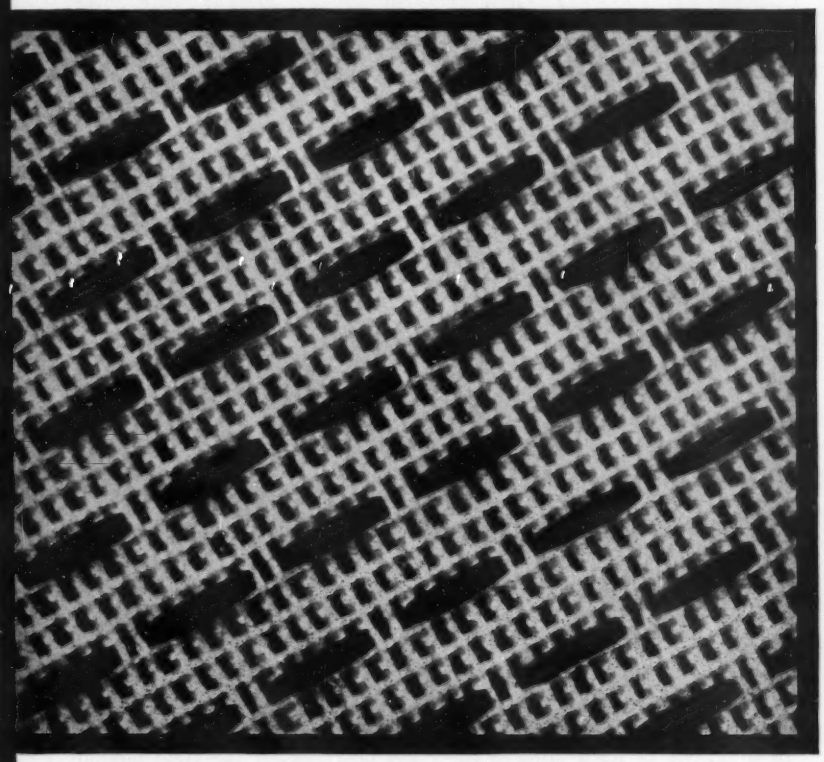
KIDDE MANUFACTURING CO., INC.

42 Farrand Street, Bloomfield, New Jersey

The word "Kidde" is the trademark of Walter Kidde & Company, Inc. and its affiliated companies.



The Close-up of Construction



An original fabric using B & C yarns magnified 100X.

See us at Booths
530-531-532-533
Knitting Arts
Exhibition
Atlantic City, N. J.
April 25-29

GUARANTEE
The Quality of Boger & Crawford Yarn is guaranteed — the highest tribute we can pay it!
Signed
Frederick Boger

The Yarn that makes Fine Fabrics

You get fine fabrics every time with BOGER & CRAWFORD Bleached Dyed and Mercerized yarns. That is because you get quality yarns.

Illustrated is an unretouched photograph of a new fabric made with B & C yarn. Judge for yourself the distinctiveness of the fabric. Note the appealing close-up of construction.

You are invited to write today for full advantages offered by B & C quality yarns.

BOGER and CRAWFORD

"K" and E. VENANGO STS., PHILADELPHIA 34, PA., U. S. A.

SPINNING PLANT— BOGER CITY, N. C.

REPRESENTATIVES

James D. Whitaker, Inc.
70 Brimmer Street
Boston 8, Mass.

Morris R. Copeland & Sons
308 Commercial Bank Bldg.
Griffin, Georgia

Dabern Textiles
460 Fourth Avenue
New York 16, N. Y.

Morris R. Copeland & Sons
Box 5032, Chattanooga, Tenn.

Mr. Ian M. Haldane
P. O. Box 54, London, Canada

THE TEXTILE INDUSTRY *Banks on* BIJUR AUTOMATIC LUBRICATION

In hundreds of mills Bijur Automatic Lubrication is paying big dividends in increased production and lower operating costs.

With Bijur, a machine oils itself —while running. You profit from increased production on every machine. There are no stops for oiling and bearing failures are virtually eliminated.

When your machines are Bijur-equipped, even the most inaccessible bearings get the right amount of filtered oil at the right time.

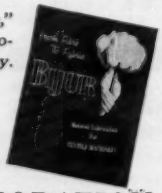
Your operating costs are cut: oil spots on work are eliminated, personnel injuries are avoided, fire risk is reduced, oil consumption is cut greatly by accurate metering, and you enjoy better housekeeping.

Leading textile mills are banking on Bijur Automatic Lubrication. Let us show you how we can help you do the same.

0-5

2365

Colorful, new bulletin, "From Fibre to Fabric," shows the practical benefits that Bijur Automatic Lubrication offers to the Textile Industry. Write for your copy.



BIJUR LUBRICATING CORPORATION
Rochelle Park, New Jersey
Pioneers in Automatic Lubrication

Shorts and Remnants

(*Continued from page 15*)

atomic regulating device has been installed in a cotton textile plant and atomic energy is being used to control the thickness of fiber passing through a cotton cleaning machine. Can anybody match this?

► Notice the nice fold-out in this issue on textile schools. TI appreciates the work being done there and also wants to tell advertisers that they may do well to develop special literature and promotion to send along to students for these boys are going to be the buyers of tomorrow.

► Some of our student readers have complained that manufacturers do not furnish helpful literature even when requested. We hope that far-sighted advertisers may be looking out for these buyers of the future as well as those of the present.

► **Ray F. Carmichael, Jr.,** of the Rhode Island School of Design, Providence, R. I., writes that "he hopes that the good works of publications such as yours may succeed in exciting the textile industry as a whole to develop and implement an enlightened public relations program calculated to clear away the smog of public skepticism that appears to have enveloped every textile operation."

► One of our good friends among the representatives writes "I know that as far as most of us feel you will get your part of the advertising, for nothing can beat TI." Thank you. We hope that comment is unanimous.

Long Straggling Nylon

"HAVE YOU PUBLISHED A TECHNICAL ARTICLE DEALING WITH THE PROBLEMS CREATED BY LONG STRAGGLING NYLON OR OTHER SYNTHETIC FIBERS IN SPINNING AND PROCESSING. . . ."

- - - - - SPINNING CO.

Machine Interference

"Please order 6 reprints of the article 'Machine-Interference,' by Dale Jones [Aug. '53]."

M. M. FARIAN
Bruce Payne & Associates, Inc.
Westport, Conn.

Warper Transformer

"Thanks for all the information you were able to obtain for me at my request re our Cocker Warper Transformer. . . . Information given wid-

TAPER-LOCK

A PATENTED PRODUCT OF DODGE

—OFF THE SHELF

NO REBORING!
NO KEYSEATING!
NO MACHINING!

Ready for the shaft, with no costly, time-consuming operations to make them fit. That's the big news about Dodge Taper-Lock Sprockets. Taper-Lock grips the shaft with the firmness of a shrunk-on fit, yet comes off easily. Bushings may be re-used. They come in sizes to meet most every application.

Taper-Lock Sprockets are available from Distributors' stocks in a complete range of B-type steel sprockets—½" through 2" pitch. Dodge quality Roller Chain is packaged in 10-foot lengths—also available in 50-foot and 100-foot reels. Save time—save money—keep production rolling—get Dodge Taper-Lock Sprockets and Roller Chain from your Dodge Distributor.

DODGE MANUFACTURING CORPORATION, 3500 Union St., Mishawaka, Ind.

CALL THE TRANSMISSIONEER, your local Dodge Distributor, for valuable assistance on new, cost-saving methods. Look for his name under "Power Transmission Machinery" in your classified telephone directory, or write us.

THERE'S ONLY ONE TAPER-LOCK, THE BUSHING THAT MOUNTS FLUSH!

Standardize; economize with Taper-Lock, the bushing that is interchangeable in Dodge sprockets; sheaves, couplings and conveyor pulleys. *More than 2,000,000 in use!*

DODGE

of Mishawaka, Ind.

"Even wit my eyes shut
I can still see dat barbed wire!"

● For many years, Cyclone Chain Link Fence has been dashing the hopes of expert criminals; until today it is the most widely used property protection fence in the world. Although it is primarily designed for protection, Cyclone gives you the additional benefits of long service life and neat appearance.

You can buy cheaper fence than Cyclone, but it will cost you more per year. Cyclone gives full value for your dollar. Nothing but brand-new, top-quality material is used throughout. Posts and top rails are heavy and rigid. Gates won't drag. And when Cyclone Fence is erected by full-time, Cyclone-trained experts your fence will stay trim and good-looking for years.

NO JOB IS TOO LARGE—NO JOB IS TOO SMALL FOR CYCLONE*

CYCLONE FENCE DEPARTMENT, AMERICAN STEEL & WIRE DIVISION
UNITED STATES STEEL CORPORATION
WAUKEGAN, ILLINOIS • SALES OFFICES COAST TO COAST • UNITED STATES STEEL EXPORT COMPANY, NEW YORK

Cyclone Fence, Dept. 845, Waukegan, Ill.

Please send me without obligation, complete information on Cyclone Fence and Gates.

Name.....

Address.....

City.....State.....

*Cyclone is the trade-mark name of fence made only by Cyclone. Accept no substitute.

USS CYCLONE FENCE

UNITED STATES STEEL

Shorts and Remnants

ened our knowledge and gave us a starting place to work from. . . "

C. M. WHITCHER

Bay Mills
Midland, Ont., Can.

Any Diapers For Sale?

"What is your price on gauze diapers—21" x 40"?"

JOHN POTTER

► Right now Old S&R hasn't any diapers for sale. We ended up with some leftovers but we're using them for dish towels—washed them out real good first.

Its Now Amerotron

"Will you kindly change your records so that the issues of TI will be sent to me at the Amerotron Corp., C/O the Vassalboro Mills, North Vassalboro, Maine. Amerotron is the purchasing, sales, and managing corporation for American Woolen, Robbins, and Textron as you know. . . . "

C. W. FRANK

Pur. Agt. American Woolen Co.
New York, New York

► O.K., Mr. Frank, if you like it that way, but we still believe it would be better "Nortorema" because NORTOREMA spelled backwards is AMEROTRON, just as TI spelled backwards is IT.

Public Relations No Luxury

"I want to commend the very fine article by Roger Milliken, 'Industry Support of Public Relations Program Is an Investment—No Luxury!' [Feb. '55]. . . . "

T. M. FORBES

Exec. V.P.
Cotton Mfrs. Assn. of Georgia
Atlanta, Ga.

► Thank you, Ted.

Wrong Boilers

" . . . Was very much surprised to see a Cleaver-Brooks boiler installation view on page 118 [Feb. '55] referred to as 150 h.p. Babcock & Wilcox boiler. . . . Actually this is a Cleaver-Brooks boiler installation and I am very much puzzled. . . . "

F. A. HOPP

Adv. Mgr.
Cleaver-Brooks Co.
Milwaukee, Wis.

► Mr. Hopp, you are right. Our apologies. Our editor eats crow. Guess we'll have to get a new boiler editor.

The Picker Lap

IS THE FOUNDATION ON WHICH COTTON YARN IS BUILT

The modern spinning mill, with few doublings, and long drafts, MUST HAVE GOOD CARD SLIVER!

The only way to get good card sliver is to make good picker laps — well felted and with little inch-by-inch variation.

A worn out picker, with a sluggish evener will not make good laps.

The best and quickest way to get pickers put in perfect condition is to have ALDRICH rebuild them. If you wish to overhaul the pickers at the mill, all needed parts can be had from ALDRICH overnight.

THE ALDRICH SYNCHRONIZED SINGLE PROCESS PICKER

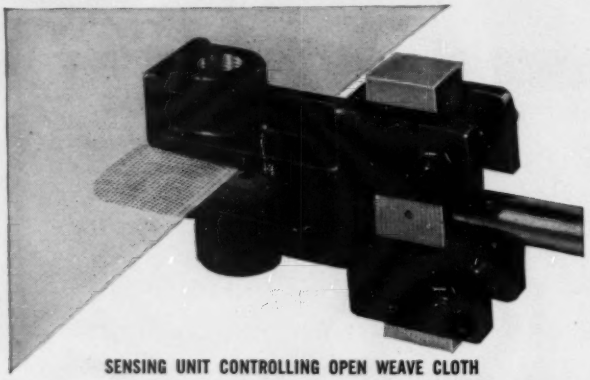
Has always made more uniform laps inch-by-inch than any other picker with which it has been compared.

AldricH MachinE WorkS

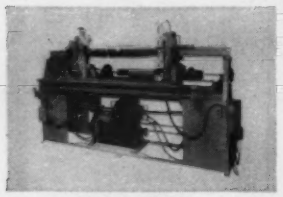
Greenwood, South Carolina

ASKANIA
CLOTH GUIDE CONTROL

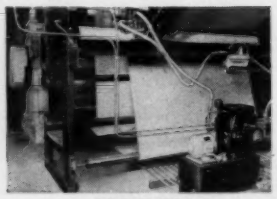
Nothing touches the cloth but a breath of air



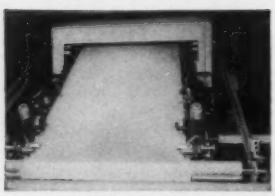
SENSING UNIT CONTROLLING OPEN WEAVE CLOTH



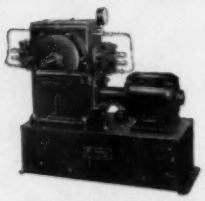
SELVAGE MARKER



PIN TYPE TENTER



CLIP TYPE TENTER



CLOTH GUIDE REGULATOR

The Askania Cloth Guide Control has been tested on hundreds of applications—it's extremely fast, accurate and dependable. It guides fast moving webs with a breath of air. It's an ideal unit to solve your cloth guiding problems on Tenter Frames, Tubing Machines, Folding Machines, Examining Machines, Printing Machines, Slitting Machines, Labeling Machines or Rewinding Machines. Askania Cloth Guide Controls are establishing new standards in the finishing departments of hundreds of Textile Mills. If you have a cloth guiding problem—ask for Bulletin A-161, or call Askania engineers for full details.

ASKANIA REGULATOR COMPANY
260 E. Ontario Street, Chicago, Illinois
Subsidiary of General Precision Equipment Corp.

Personal NOTES
ABOUT MEN YOU KNOW

Wilson Adams, manager of the decorative fabrics department of the Cannon Mills Co., Kannapolis, N. C., has been elected vice-president of the company.

Callaway Mills Co., LaGrange, Ga., has recently acquired the services of **Robert R. Alexander** as an associate research chemist in the chemistry department of their research and development division. Mr. Alexander had been connected with the research and development division of Collins & Aikman Corp., New York, N. Y., prior to his recently completed service with the U. S. Army.

The Association of Cotton Textile Merchants of New York recently announced election of executive officers: **W. Ray Bell** was re-elected president; **Marvin R. Cross,** Greenwood (S. C.) Mills, is new vice-president; **Ridley Watts,** Spartan Mills, Spartanburg, S. C., is treasurer; **John L. Severance** is secretary; and **Edwin F. Vandervoort,** is assistant treasurer.

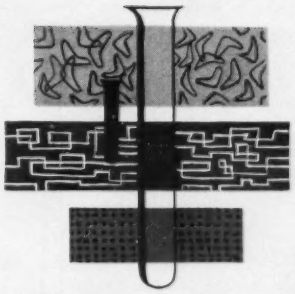
Recently elected president and treasurer of Bennett Textile Co., Cohoes, N. Y., is **Harold W. Bennett; Mrs. Bessie I. Bennett** is vice-president; **John V. Bennett,** assistant treasurer; and **Brockwell Calder,** secretary.

Joseph Z. Bussiere has been appointed plant manager of Lynn Textile Mills, Holyoke, Mass.

The Thomaston, Ga., plant of the William Carter Co., Needham Heights, Mass., under construction, has **Vester Butler** as its superintendent.

Charles Carson is new superintendent of Pride of the West Knitting Mills, Ltd., Vancouver, B. C.

Hugh G. Chatham, II, has been elected president of the Chatham Manufacturing Co., Elkin, N. C., succeeding **Albert L. Butler.** Mr. Butler was named chairman of the board to fill the vacancy created by the resignation of **Thurman Chatham** who has retired from active participation in management of the company but continues as a director. * * * The Elkin Junior Chamber of Commerce named



Improve textile sizing, printing, finishing

use OK TEXTILE STARCHES

OK Textile Starches assure you of quality cloth that stimulates sales and profits. This is true because of Hubinger's continuous laboratory research giving you the benefit of improved, up-to-the-minute additives, plus carefully controlled formulae uniformity. Always dependable, convenient to store and time-saving in use, OK Textile Starches provide an effective, economical means to improved sizing, printing and finishing. Try OK soon in your mill operations!

Need a tailor-made textile starch?

Any Hubinger representative will be pleased to place expert technical men and extensive laboratory facilities at your disposal. Remember, some of the industry's leading textile experts are on Hubinger's staff.

Contact the representative nearest you:

Ira L. Griffin & Sons
Southern Agents
P. O. Box 1576
Charlotte, N. C.
(Phone: Franklin 6-5583)

Joe R. Myers
1817 Dell Drive
Columbus, Georgia
(Phone: 7-2244)

Carl F. Merritt
Box 346-A
Piedmont, S. C.
(Phone: Greenville 2-0424)

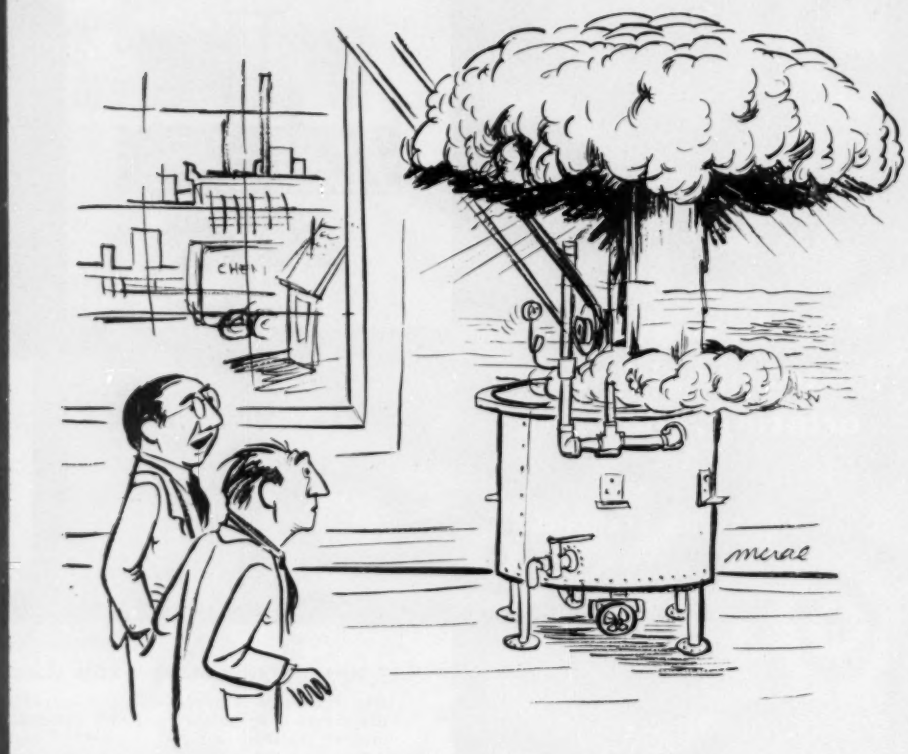
New York Office
500 Fifth Avenue
New York 36, New York
(Phone: Longacre 5-4343)

Boston Office
192 State Street
Boston, Massachusetts
(Phone: Capitol 7-3268)

Also offices in Chicago and Los Angeles

OK BRAND

THE HUBINGER COMPANY
KEOKUK, IOWA
ESTABLISHED IN 1881



"It's that new batch of Seyco size for that super-secret Government job."

SEYCO sizes are well-known throughout the textile industry. They're uniform, dependable—compounded so that each new batch matches the last in quality. Although SEYCO sizes embrace a wide range of textile needs, now and then a special job comes along that demands a special sizing formula. We enjoy the challenge such jobs offer. Try us next time one pops up. Give us your specifications. We'll do the rest!

Warp Sizing: *Softeners, Binders, Penetrants, Ty-In Penetrants, Shuttle Dressing.*

Wet Processing Chemicals and Auxiliaries: *Dye Assistants, Penetrants, Rewetting Agents, Sanforized Fabric Oils, Detergents, Scouring Agents, Softeners.*

Niagara Twist-Setter: *Yarn Conditioning Penetrants.*

Headquarters for textile chemicals

SEYDEL-WOOLLEY & CO.

748 RICE STREET, ATLANTA, GEORGIA

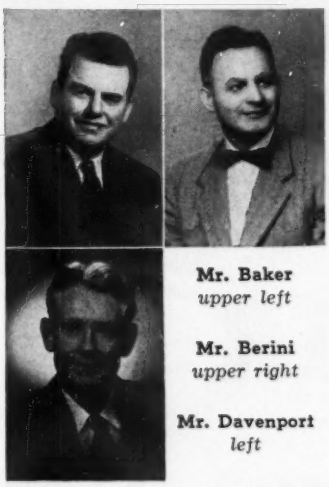
SEYCO

Personal NOTES ABOUT MEN YOU KNOW

the company's new president "Young Man of the Year for 1954" as a result of his service to the community for the year.

R. C. Clarke has resigned as superintendent of the Riverside Division of Dan River Mills, Inc., Danville, Va., and is now affiliated with Dominion Textile Co., Montreal, Canada.

Cecil Davenport has been made superintendent of Brookford (N. C.) Mills, replacing A. O. Hefner who resigned. Mr. Davenport was transferred from Bath (S. C.) Mills, both



Mr. Baker
upper left

Mr. Berini
upper right

Mr. Davenport
left

plants being units of United Merchants and Manufacturers. **Dan Berini,** formerly personnel manager of Seminole Mills, Statesville, N. C., is now personnel manager of Brookford. Serving as overseer of spinning is **James F. Baker,** who also was connected with Seminole Mills. **Harold Hoke,** who has been with Brookford since 1949, is new technical superintendent.

Munsingwear, Inc., Minneapolis, Minn., has elected **Laurens D. Dawes,** vice-president and treasurer of the company, to the board of directors.

Fieldcrest Mills Inc., has appointed **John Rae Gilman** to the board of directors. * * * Recently promoted to superintendent of the Electric Blanket Mill is **T. R. Ray,** who was formerly general foreman. * * * **D. A. Purcell,** superintendent of the Blanket Mill, has been named chairman of the Training Advisory Council for 1955 at Fieldcrest. Other new mem-

(*Continued on page 35*)

Banish errors

Why take chances on human errors and illegible writing in recording essential weights?

PRINT YOUR WEIGHTS TO CONTROL YOUR COSTS

Toledo Printweigh Scales meet your needs today for *closer cost control!* Stop human errors in reading, remembering, recording... provide accurately printed weights with split-second speed ... accurately recorded!

Printweigh Scales available in a full range of capacities for ticket, sheet or strip records. *44 new features* include . . . new clean-line design . . . double-pendulum mechanism in one-piece sector design . . . lifetime fulcrum. Send for new condensed catalog No. 2001. Toledo Scale Co., Toledo 1, Ohio.

ANOTHER COST-SAVING TOLEDO

The *Speedweigh* gives you a quick accurate check on package uniformity . . . and has a multitude of general purpose uses as well. 3 sizes—to 5 lb., to 20 lb., to 50 lb.

SERVICE
Factory-Trained
200 Cities

TOLEDO®

HEADQUARTERS FOR SCALES

get this most-wanted pink with Pfister's

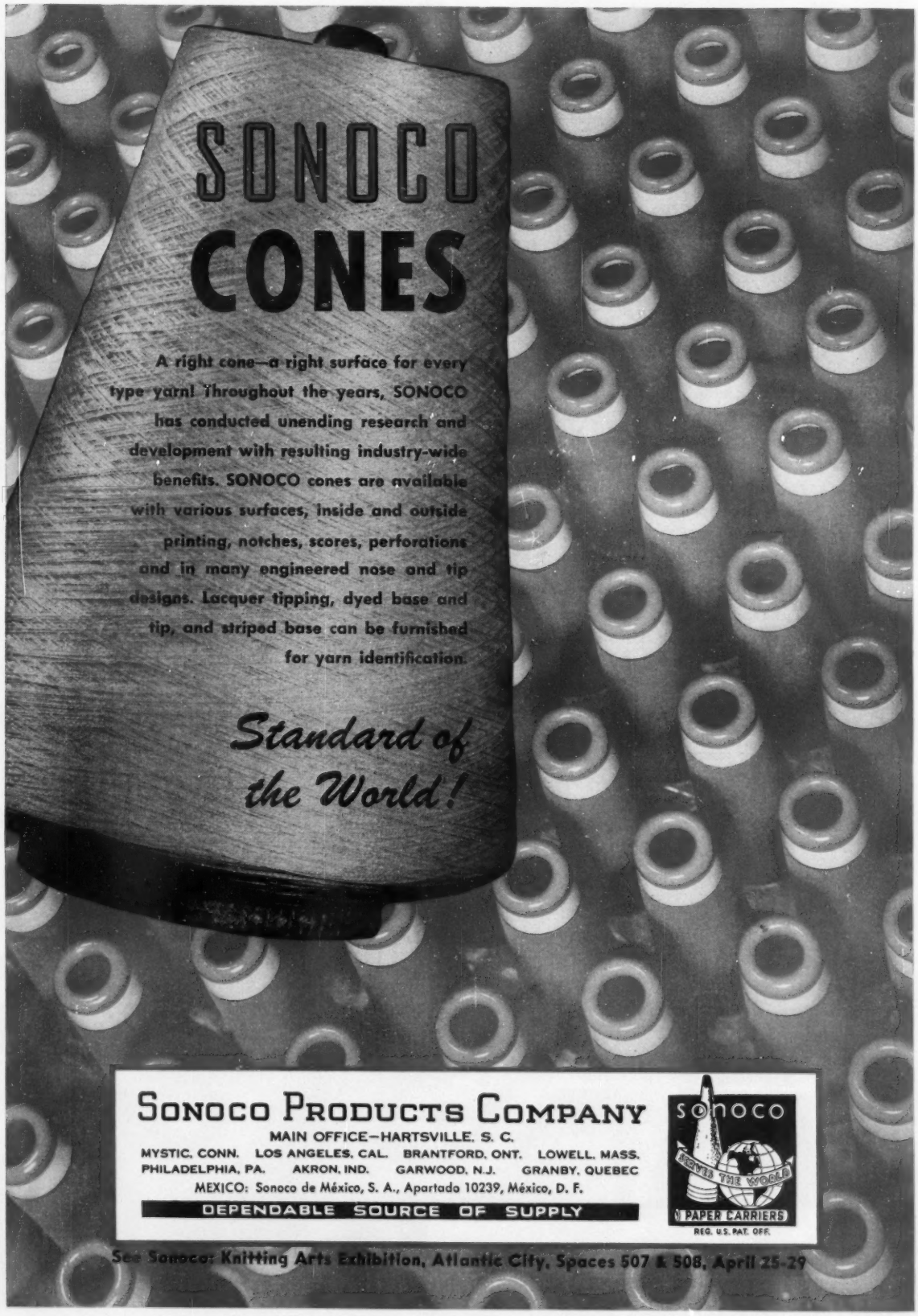
Naphthol AS-ITR

Light-fast . . . wash-fast . . . excellent level dyeing—all these important elements are in this most popular shade of pink.

Economically produced with Pfister's Naphthol AS-ITR, this fashion-right pink is in eager demand for fast-selling merchandise. Get sample and formula from Pfister—now!

Pfister Chemical Works INC.

Ridgefield, N. J.


SONOCO
CONES
A right cone—a right surface for every type yarn! Throughout the years, SONOCO has conducted unending research and development with resulting industry-wide benefits. SONOCO cones are available with various surfaces, inside and outside printing, notches, scores, perforations and in many engineered nose and tip designs. Lacquer tipping, dyed base and tip, and striped base can be furnished for yarn identification.
Standard of the World!
SONOCO PRODUCTS COMPANY
MAIN OFFICE—HARTSVILLE, S. C.
MYSTIC, CONN. LOS ANGELES, CAL. BRANTFORD, ONT. LOWELL, MASS.
PHILADELPHIA, PA. AKRON, IND. GARWOOD, N.J. GRANBY, QUEBEC
MEXICO: Sonoco de México, S. A., Apartado 10239, México, D. F.
DEPENDABLE SOURCE OF SUPPLY
sonoco
SERVES THE WORLD
PAPER CARRIERS
REG. U.S. PAT. OFF.
See Sonoco Knitting Arts Exhibition, Atlantic City, Spaces 507 & 508, April 25-29

Get up to 10% more

with Dayco Cots

New Dayco EW-465 Cots eliminate eyebrowing to increase yarn quality.

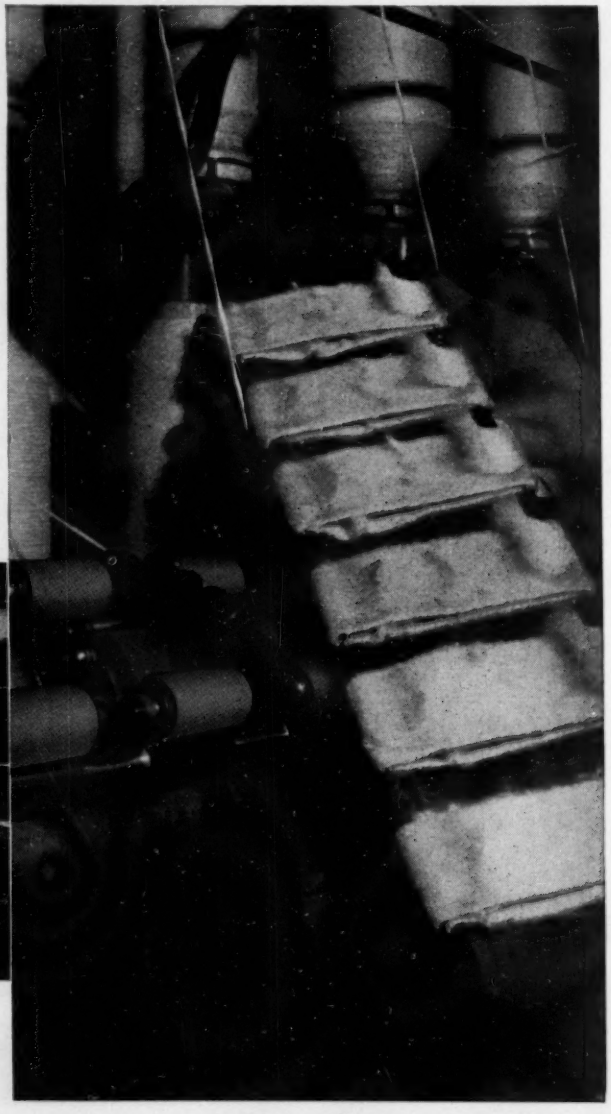
Mills report they're getting considerably higher quality yarn and saving money at the same time with Dayco Cots on their spinning frames. That's because Dayco Cots contain the new, exclusive ingredient, IBC, which eliminates the major cause of excessive eyebrows.

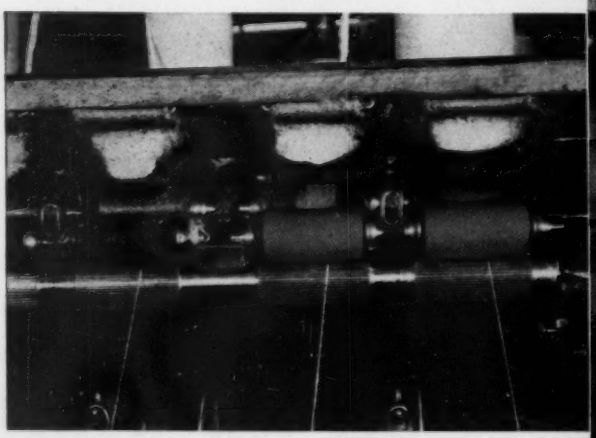
The reason they can do this is that the chemical and mechanical action resulting from the addition of IBC to a special synthetic rubber gives Daycos exactly the *right* coefficient of friction. Thus, only the short staple fibres are picked up and tucked well back under the clearer board to prevent development of troublesome eyebrows that would otherwise create lap ups and ends down. Long staple fibres are left in the yarn where they belong.

Dayco Cots Pay Off in Lower Costs

Dayco Cots have a uniformly correct surface texture, cushion and friction, which make possible consistently higher quality yarn at lower cost. Because of less eyebrowing, waste is reduced and fewer clearer board cleanings are required. Fewer buffings are also needed since IBC retards slicking and glazing. Then, too, besides being unaffected by temperature and humidity, Dayco Cots stay true, do not groove, pit or develop flat spots.

Whether you work with natural or synthetic fibres, Dayco non-eyebrowing Cots are your guarantee of achieving improved yarn quality and uniformity at the lowest possible cost. Make one test with Dayco Cots and you'll be convinced that Daycos should be on all your frames. Call your Dayco representative or mail the coupon to get all the money-saving facts.

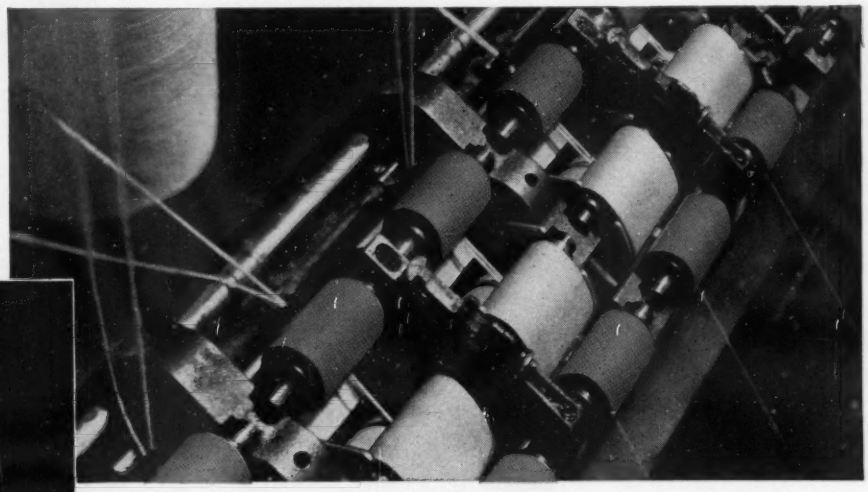




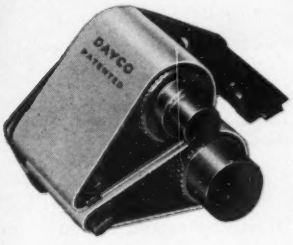
Dayco Cots, tested side by side on the same frame with cots of another make, at left, show complete lack of eyebrows on the forward edge of clearer board above.

uniform yarn

and Dayco Long Draft Aprons

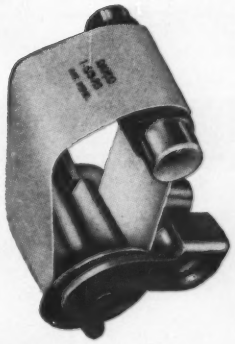


The perfect combination on your spinning frames is Dayco Cots and Dayco single or double Long Draft Aprons. They'll give you more uniform yarn, higher production, and savings of time, labor and money.



Dayco Long Draft Aprons draft higher quality yarn at a substantial saving.

You'll get up to 10% more uniform yarn because Dayco Long Draft Aprons have a superior drafting ability which never varies! That's because Dayco Aprons are precision-engineered and manufactured to amazingly close tolerances. Too, Dayco Aprons won't stretch or take a permanent set . . . your guarantee of fast, positive morning starts, even after week-end shutdowns. Longer-lasting Daycos are available for single or double apron systems. Dayton Rubber Co., Textile Div., 401 S. C. National Bank Bldg., Greenville, S. C.



GOLDEN JUBILEE

Dayton Rubber 50 YEARS OF PROGRESS

Dayco and Dayton Thorobred Textile Products for Better Spinning and Weaving

Clearer board used with Dayco EW-465 Cots demonstrates the effectiveness of the additive IBC. Note minimum amount of waste carried well back away from eye-browing position.

© D. R. 1955

DAYTON RUBBER COMPANY, Textile Division, Dept. 364, 401 S. C. National Bank Bldg., Greenville, S. C.

Send me complete information on ☐ Dayco Cots ☐ Dayco Long Draft Aprons

*Name*_____

*Firm*_____

*Address*_____

*City*_____ *Zone*____ *State*_____

Call on ARKANSAS CO., *for Thermo-setting Resins* designed for greatest efficiency for specific needs

RESIPON® A D

—for DIMENSIONAL CONTROL OF RAYONS —provides residual shrinkage of less than 2%, even after repeated laundering.

—for CRUSH RESISTANCE of cellulosic fabrics —gives a resilient, crush resistant finish, especially desirable on drapes, dress goods, etc.

—an acetylene - diurea - formaldehyde complex, Resipon A D is stable under long storage. May be applied and cured on conventional equipment.

—as an additive to starches and other film forming finishing agents to it improves durability to laundering.

RESIPON® N C

—for SUPERIOR CRUSH RESISTANCE—imparts soft, resilient hand to cotton and/or rayon fabrics—also useful for wash-resistant embossed and chintz effects.

—provides effective dimensional control at lower concentrations than conventional urea-formaldehyde resins.

—Resipon N C is a modified urea-formaldehyde resin with *low chlorine retention.*
—Excellent storage life.

RESIPON® M F

—to impart BODY and STIFFNESS to HYDROPHOBIC FIBERS—without mark-off.

—also useful in setting pigment, flame retardants and other auxiliaries on fabrics.

—Resipon M F may be used in conjunction wth Fi-Retard S B to produce flame resistant finish on sheer nylon fabrics—durable to laundering and dry cleaning requirements of the Flammable Fabrics Act.

RESIPON® C

—a urea-formaldehyde resin syrup for finishing rayon, cotton or mixed fiber fabrics for DIMENSIONAL CONTROL, CRUSH RESISTANCE, BODY and a crisp to firm hand.

—Resipon C has found wide application in conjunction with silicone water repellent finishes such as Hydro-Pruf, contributing not only to the hand but also to the durability of the water repellent finish.

(Write for Technical Service Bulletins)

ARKANSAS CO., INC. · NEWARK · NEW JERSEY

Serving the Textile Industry for over 50 years

Personal NOTES ABOUT MEN YOU KNOW

(Continued from page 29)

bers on the council are; **Ralph Going, Robert Harden, Roger Wilkes, Horace Penn,** and **C. P. Wilson.** The advisory body meets quarterly and assists the training department and makes specific recommendations for projects and activities in various areas of training at the mills.

National Safety Council has announced new officers to head the Textile Section for 1955: **H. S. Baucom,** safety director, N. C. Industrial Commission, general chairman; **Glen G. Fleming,** safety director, Celanese Corp. of America, vice-chairman; **Harold F. Haydon,** safety director, Columbian Rope Co., secretary.

John B. Dickson, formerly technical analyst with the Textile Division, U. S. Rubber Co., recently joined the staff of the Southern Regional Research Laboratory at New Orleans, La., as a part-time consultant in the

Dr. Dickson

Laboratory's cotton research program. Dr. Dickson is participating in research to determine the effect that cotton fiber properties have on yarn and fabric properties and to develop equations for translating fiber properties into yarn and fabric properties.

Standard - Coosa - Thatcher Co., Chattanooga, Tenn., has announced promotions within the company: **H. H. Eagar, Jr.,** formerly superintendent of the firm's National Plant, has been named manager of quality and development; and **H. E. Delay** is now superintendent of the National Plant, having served as assistant superintendent since 1948.

P. E. Findlay, vice-president in charge of sales for Bibb Manufacturing Company, will retire from active duty with the company on May 1 after more than 50 years of service.

Appointment of **Richard S. Gattoni** as stylist and assistant sales manager

CHAMBRAY
LAWN
INTERLINING
NAINSOOK
TICKING
OSNABURG
NETTING

FLANNEL
ORGANDY
OXFORD
DENIM
SHEETING

IMPERIAL
NANKING
CHINTZ

CLINTON

STANDARDIZED STARCHES

FOR THE SIZING AND FINISHING OF

TEXTILES

Technical Service in connection with your specific problems is available upon request.

CLINTON FOODS INC.

CORN PROCESSING DIVISION

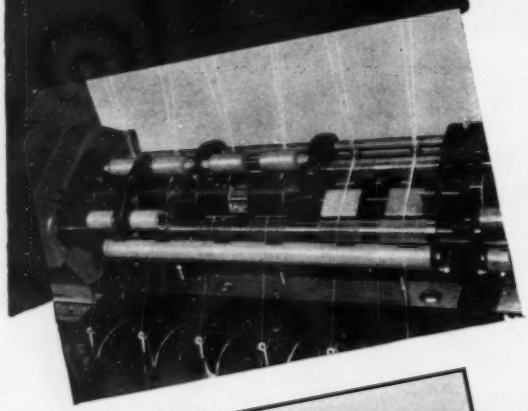
CLINTON, IOWA

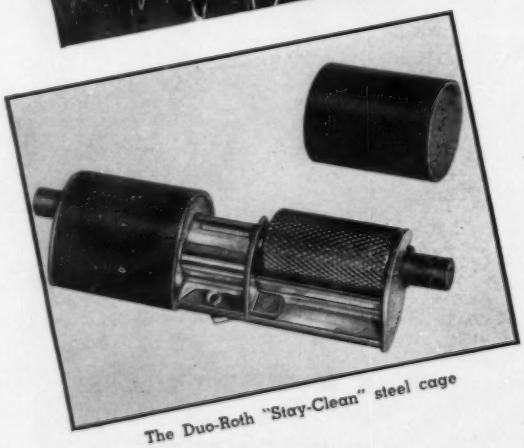
IT'S NEW

IT'S EFFICIENT

IT'S CLEAN

SACO-LOWELL "STAY-CLEAN"* DUO-ROTH DRAFTING





The Duo-Roth "Stay-Clean" steel cage

FRONT ROLL
A new self-aligning, center suspended, Saco-Lowell anti-friction front roll held in a Dixon saddle guide, which eliminates the front cap bars, assures perfect alignment at all times of the front top roll with the bottom steel roll. The advantage of this perfect alignment is better drafting and prolonged life of the top roll covering as has been so successfully demonstrated on the over-1000 Gwaltney frames now in operation.

MIDDLE ROLL
Mill tested Duo-Roth assembly with anti-friction middle roll. Has sealed-in lubricant which eliminates danger of spoiling top or bottom apron with oil and friction drag. The rugged, steel cage is a precision product. Simple means are provided to accurately adjust the clearance between the aprons for the optimum in fibre control.

BACK ROLL
Solid back roll with Nylon gudgeons and a saddle with Rulon bearings. Roll never needs oiling — needs but little cleaning.

RANGE OF DRAFTS
The ability of the "Duo-Roth" Drafting System to give increased drafts ranging from 60 to 100% over current standards and at the same time produce stronger and more uniform yarns has been demonstrated on thousands of spindles in quality-minded mills throughout the world.

AVAILABILITY
The Duo-Roth "Stay-Clean" drafting system can be supplied with new spinning and as a changeover for frames now equipped with Roth spinning.

For further information or a demonstration, contact the nearest Saco-Lowell Sales Office.

*Trademark

SACO-LOWELL
60 BATTERYMARCH STREET, BOSTON 10, MASS.
Shops at BIDDEFORD and SACO, MAINE, and SANFORD, N. C.
SALES OFFICES: CHARLOTTE • GREENSBORO • GREENVILLE • ATLANTA

in this corner

new liquid Nacconol® SL

to help cut wet processing costs

On an equivalent active-ingredient basis Nacconol SL is a better money-value than most dry products. Your detergent-materials cost is less because you get more-cleaning-power-per-dollar.

and

You save on handling costs, too. Nacconol SL, being a liquid concentrate, is easy and clean to handle, requires no dissolving. You simply add water to get the desired working concentration. For complete technical data, send for Bulletin #326.

and in this corner

a handy coupon that will bring you a free sample of Nacconol SL so you can see for yourself how remarkable Nacconol SL really is.

NATIONAL ANILINE DIVISION

ALLIED CHEMICAL & DYE CORPORATION

40 RECTOR STREET, NEW YORK 6, N.Y. • HAnover 2-7300

Boston 14, Mass., 150 Causeway St.	CApitol 7-0490	Charlotte 1, N.C., 201-203 West First St.	CHarlotte 3-9221
Providence 3, R.I., 15 Westminster St.	DExter 1-3008	Richmond 19, Va., 8 North Fifth St.	Richmond 2-1930
Philadelphia 6, Pa., 200-204 S. Front St.	LOmbard 3-6382	Columbus, Ga., Columbus Interstate Bldg.	Columbus 3-1029
Los Angeles 58, Cal., 4814 Loma Vista Ave.	LOgan 8-2257	Greensboro, N.C., Jefferson Stand. Bldg.	GReensboro 2-2518
San Francisco 5, Cal., 517 Howard St.	SUtter 1-7507	Chattanooga 2, Tenn., James Bldg.	CHattanooga 6-6347
Portland 9, Ore., 730 West Burnside St.	Beacon 1853	Atlanta, Ga., 1216 Spring St., N. W.	Elgin 0308
Chicago 54, Ill., The Merchandise Mart	SUperior 7-3387	New Orleans 12, La., Carondelet Bldg.	Raymond 7228

Toronto 2, Can., 137-143 Wellington St. W. Empire 4-6495

Please send sample of Nacconol SL

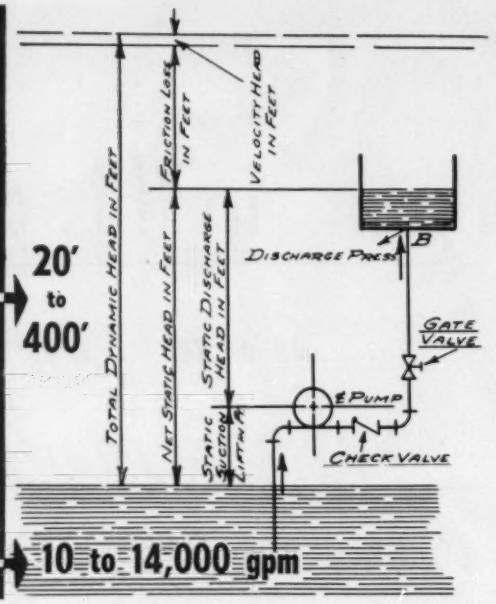
NAME

COMPANY

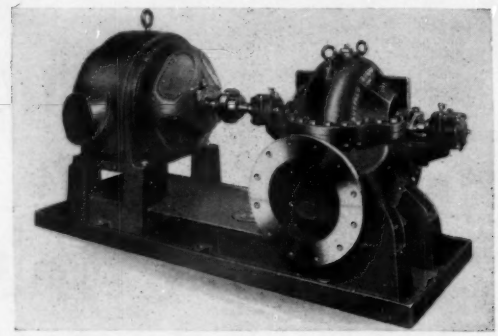
ADDRESS

NAME YOUR HEAD

NAME YOUR VOLUME



THERE'S A "BUFFALO" DOUBLE SUCTION PUMP FOR HIGHEST EFFICIENCY



"Buffalo" Type "SL" Double Suction Pump. Write for Bulletin 955-P for all details.

If you wish to move large volumes of clear water at heads up to 400', this Type SL Double Suction Pump is your ideal choice. It offers you:

(1) The finest construction, embodying the best accepted pump engineering features—the famous "Q" Factor*.

(2) Such a wide range of sizes (1½" to 20" pumps) that you can very accurately select the most efficient pump from its performance curve.

In addition to these pumps, "Buffalo" builds single suction, single stage and multistage centrifugal pumps for every type of service. We shall be happy to supply you with details on any of these lines—all backed by 78 years of quality pump manufacturing.

"Buffalo" PUMPS

The "Q" Factor — the built-in Qaulity which provides trouble-free satisfaction and long life.

BUFFALO PUMPS, INC.

175 MORTIMER STREET BUFFALO, N. Y.

Subsidiary of Buffalo Forge Company

Canada Pumps, Ltd., Kitchener, Ont.

Sales Representatives in all Principal Cities

A BETTER CENTRIFUGAL PUMP FOR EVERY LIQUID

Personal NOTES ABOUT MEN YOU KNOW

of Stead & Miller, a division of Collins & Aikman Corp., New York, N. Y., was announced recently. Mr. Gattoni joined Collins & Aikman in 1940 and has been assistant to the vice-president of Stead & Miller since 1952.

C. B. Griffith is head of the Harriet Mills, Inc., Rock Hill, S. C., a hosiery manufacturing plant which has recently obtained a South Carolina charter.

Angus Park Woolen Co., Inc., Hanover, Conn., has named **William R. Johnston,** formerly superintendent of the A. D. Julliard & Co.'s, Scottsville, N. Y. mill, manager of their plant replacing **James Kemp,** who has retired after 30 years with the company.

Recently retired as vice-president and plant manager of the Charles Lachman Co., Phoenixville, Pa., is **R. H. Johnson.**

Paolino Gerli, formerly chairman of the executive committee of La France Industries, New York, N. Y., has succeeded **Raymond C. Kramer** who recently resigned as chairman of the board.

Public relations chairman of the year round program of the Durham (N. C.) United Fund is **Chauncey W. Lever,** director of industrial and public relations at Erwin Mills, Inc., Durham.

Ed L. Lyon now serves in the newly created position of manager for the Spatex Corp., Charlotte, N. C. Prior to this appointment Mr. Lyon was general manager of Warwick Mills, West Warwick, R. I.

Sidney Blumenthal & Co. Inc., New York, N. Y., has announced the appointment of **Raymond L. Matthews** as superintendent of converting, with headquarters in Rocky Mount, N. C. Mr. Matthews formerly served as assistant manager of Plant No. 3 of the Crompton - Shenandoah Co. in Waynesboro, Va.

Recently re-elected as president of Faith Mills, Inc., Averill Park, N. Y., is **Robert H. McCarthy, Sr.** At the same time, **Arthur M. Butler** was elected vice-president and general manager; **George F. Curley,** secretary; **Joseph J. Malone,** treasurer; and

(*Continued on page 44*)

Announcement

Scott & Williams, Incorporated, having acquired certain machine tools, shop tools and fixtures, patterns, inventories, patents and other property of the Brinton Machine Company of Philadelphia, Pennsylvania, wishes to announce the forming of "The Brinton Fabrics Machine Division" for the purpose of manufacturing fine circular knitting machines to produce plain, fancy, rib and jersey fabrics.

This newly formed division will be able not only to supply and service the former customers of the Brinton Machine Company but with the added facilities, resources, experience and equipment of Scott & Williams, Inc., be in a position to improve the over-all service as well as machines. It will be the aim of "The Brinton Fabrics Machine Division" to keep a constant supply of spare parts on hand at all times in order to give prompt and efficient delivery of all customers' requirements for both Brinton and Scott & Williams machines.

"The Brinton Fabrics Machine Division" of Scott & Williams, Inc. will endeavor in every way possible to retain the goodwill of all Brinton machine users with competent service and congenial customer relationship.

SCOTT & WILLIAMS, INC.

SCOTT & WILLIAMS, INC.
THE BRINTON FABRICS MACHINE DIVISION
WHITMAN D. IDE, General Manager

DAVID B. BRINTON, Sales Manager
GEORGE McDOWELL, Sales Engineer
JOSEPH M. OLACHEA, Sales Engineer
} Formerly with Brinton Machine Co.

Sales Engineers

ROY W. BENNETT
FRED H. HALLENBECK
JOSEPH S. HUBBARD
JOHN G. SCHMIDT
ALTON W. NEALLEY
JOHN R. SEYMOUR

For further information call or write
SCOTT & WILLIAMS, INC.
THE BRINTON FABRICS MACHINE DIVISION
Main Offices and Plants
LACONIA, NEW HAMPSHIRE

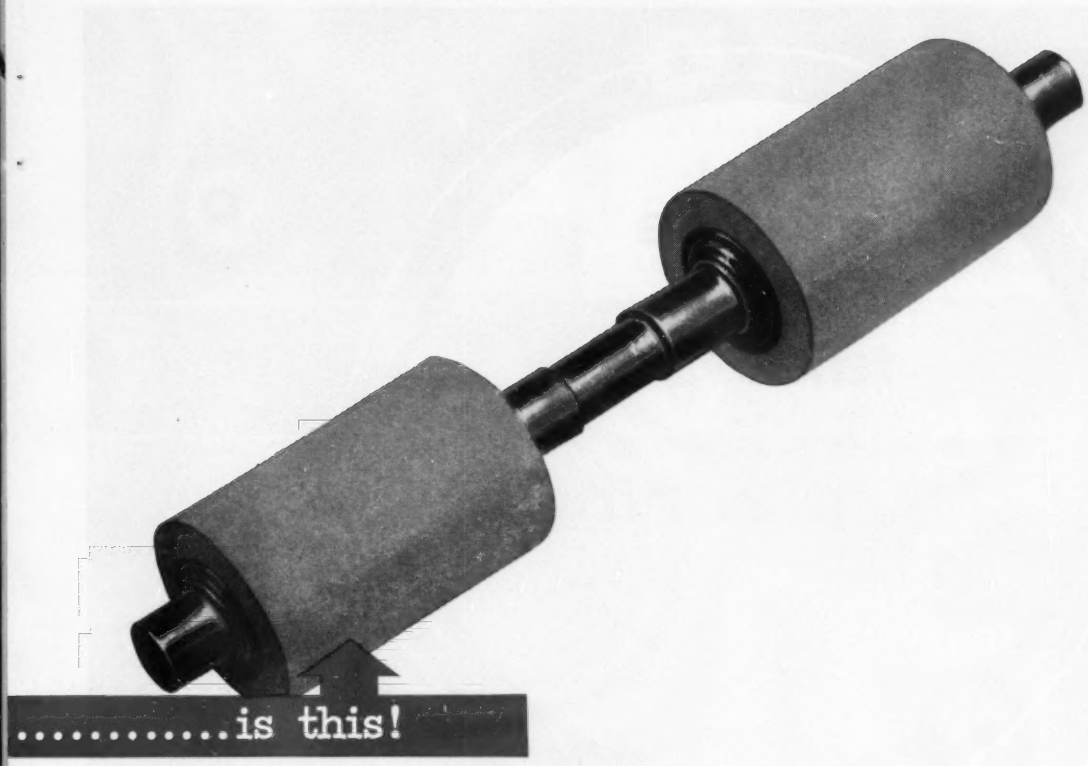
Sales Office:
Empire State Building, New York 1, N. Y.

Divisional Offices:
Reading, Pa. High Point, N. C. Chattanooga, Tenn.

THIS COT LAPS. Moisture layers on fiber and cot contain electrical charges. When pressed together in spinning, these electrically charged moisture layers tend to adhere to each other. When an end breaks, this attraction is strong enough to hold the yarn and cause lapping.

the difference between this...and this.....

THIS COT DOESN'T LAP. Electrolytes incorporated in patented Accotex composition neutralize the electrical charge in the moisture layer on the cot. Therefore, there can be no attraction between the moisture layers and no tendency for fiber to lap up onto the top roll.



ARMSTRONG J-490 ACCOTEX® COTS HAVE BUILT-IN LAP RESISTANCE

One of the best ways to prevent lapping of synthetic fibers—or any type fiber with revolving clearers—is to equip your frames with Armstrong J-490 Accotex Cots.

This roll cover is made of patented synthetic rubber compound that eliminates a basic cause of lapping. Special electrolytes in the rubber neutralize normal electrical attraction between cover and fiber. As a result, J-490 Cots actually tend to *repel* broken ends.

Good fiber control. The J-490 compound offers other important spinning advantages, too. Because it contains no rough fillers, its drafting surface is always uniformly smooth. This roll cover won't pull fibers from the stock or cause excessive ends down.

An exceptionally clean-running cover, J-490 gives good fiber control over long periods of service. It's never affected by oils, dyes, or commonly used textile solvents. In fact, all that's needed to keep this cot spinning like new for years is an occasional re-buffing.

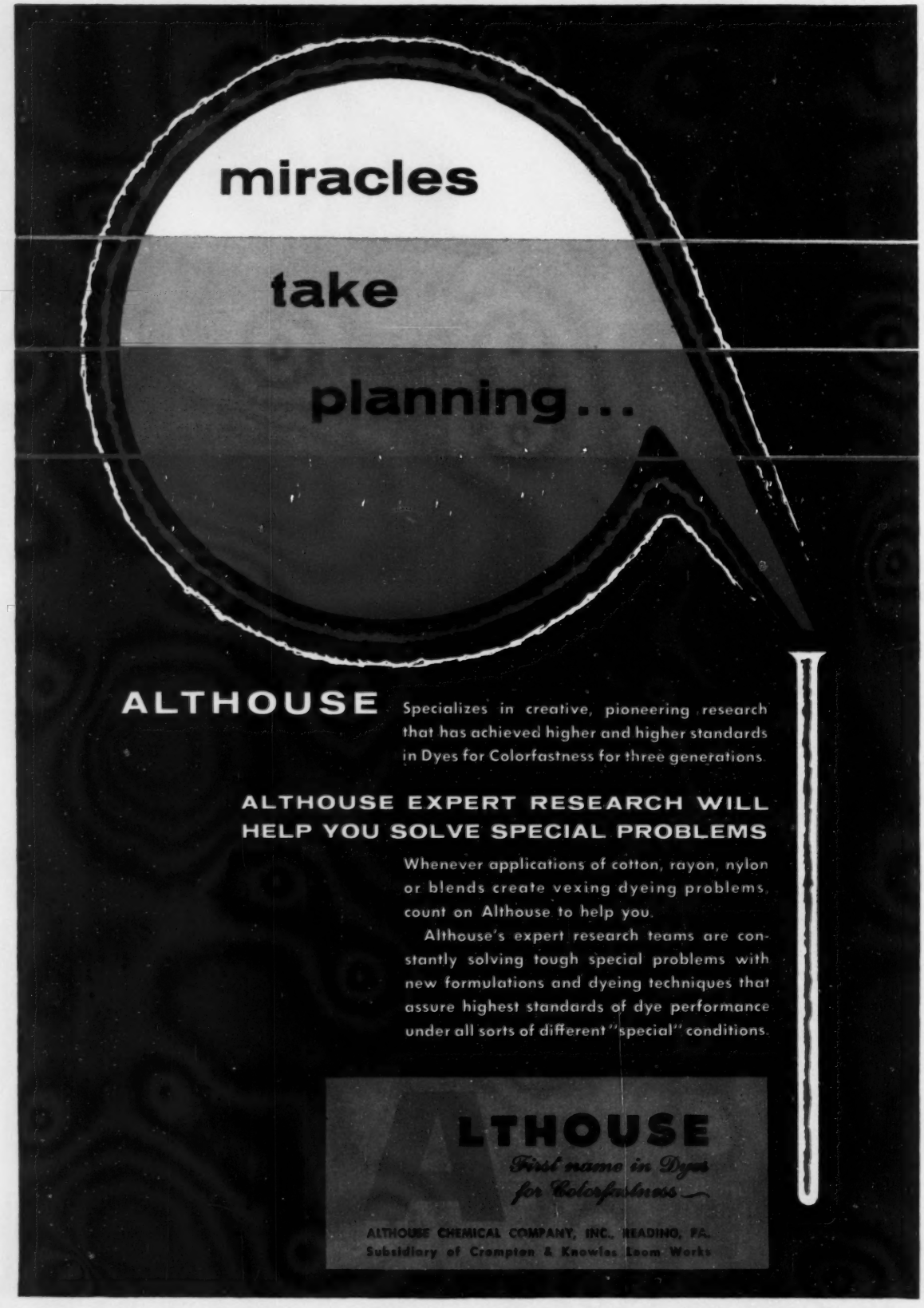
You can prove how long-wearing J-490 Accotex Cots help prevent lapping and improve yarn quality by running a few test sides of these cots. Your Armstrong representative will be glad to arrange this test. Call him today or write direct to Armstrong.

Is eyebrowing a problem in spinning? Armstrong NO-742-S Accotex Cots with the "constant-friction" surface pack waste well back under the clearers and prevent eyebrows from forming.

Send for free booklet. Armstrong "Textile Roll Coverings and Mill Supplies" gives suggestions on selection, installation, maintenance of Armstrong textile products. Write to Armstrong Cork Company, Industrial Division, 6504 Ivy Street, Lancaster, Pennsylvania.

Armstrong ACCOTEX COTS

. . . used wherever performance counts


miracles
take
planning...
ALTHOUSE
Specializes in creative, pioneering research that has achieved higher and higher standards in Dyes for Colorfastness for three generations.
ALTHOUSE EXPERT RESEARCH WILL HELP YOU SOLVE SPECIAL PROBLEMS
Whenever applications of cotton, rayon, nylon or blends create vexing dyeing problems, count on Althouse to help you.
Althouse's expert research teams are constantly solving tough special problems with new formulations and dyeing techniques that assure highest standards of dye performance under all sorts of different "special" conditions.
LTHOUSE
First name in Dyes for Colorfastness
ALTHOUSE CHEMICAL COMPANY, INC., READING, PA.
Subsidiary of Crompton & Knowles Loom Works

Automatic Winders for Rewound Filling

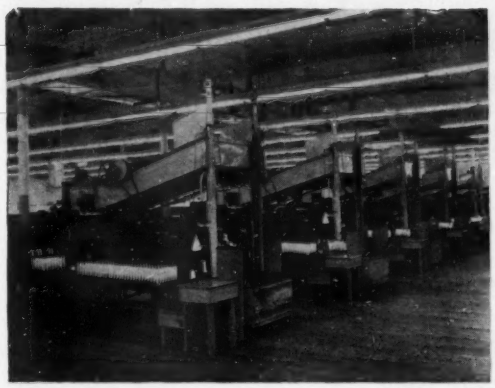
to take advantage of large package spinning, more yarn on filling bobbins, more uniform bunches, better weaving bobbins, and inspected yarn, all of which go to make a better fabric.

Abbott Traveling Spindle Package Winders

Automatic Cone or Tube Winders for warping, dyeing, twisting, quilling, sales.

Can be equipped with any one of a variety of slub catchers and inspection devices.

Production up to 1000 bobbins per hour per operator.



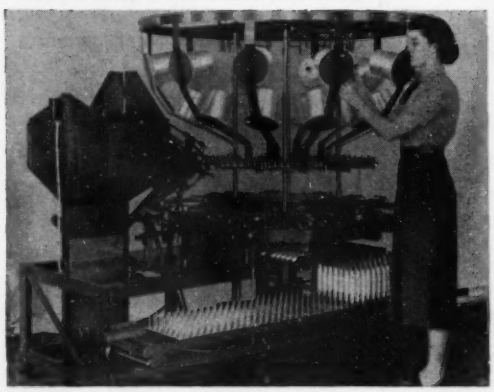
Abbott Traveling Spindle Automatic Quillers

For winding cotton, spun rayon, worsted, etc., equipped to doff automatically into baskets, or stack automatically into boxes.

For rewinding woolen yarn from mule and ring frames.

For winding filament rayon and nylon, etc., with automatic pinboard attachment or wide belt inspection conveyor.

Production up to 2000 bobbins per hour per operator.



Abbott Fully Automatic Radial Quiller

For smaller lots and widely diversified mills.

For winding cotton, spun rayon, filament rayon, worsted, wool, etc.

Can be arranged to deliver bobbins to Pinboard Attachment, or into baskets, or into wide belt conveyor.

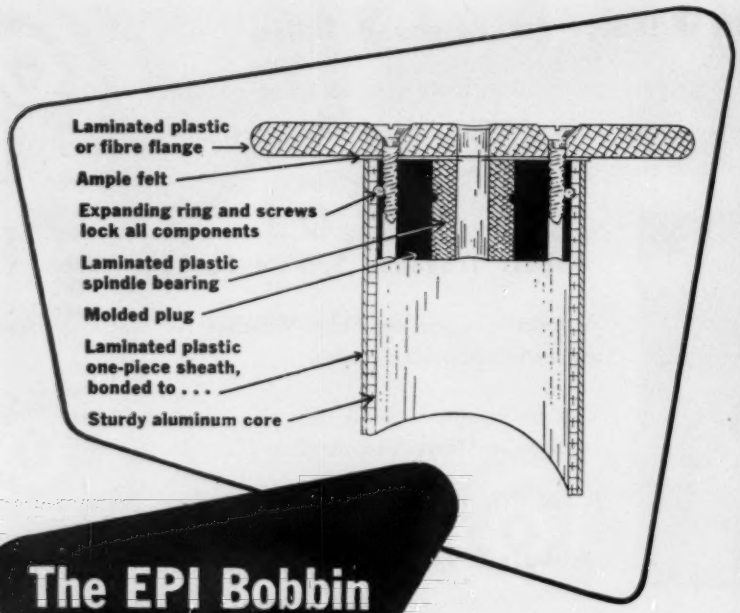
One operator can run several machines producing up to 2000 bobbins per hour per operator.

Can be equipped with measured yardage device for two-shuttle looms.

ABBOTT MACHINE CO., INC.

WILTON, NEW HAMPSHIRE

SOUTHERN SALES AND SERVICE: GREENVILLE, S. C.


Laminated plastic or fibre flange
Ample felt
Expanding ring and screws lock all components
Laminated plastic spindle bearing
Molded plug
Laminated plastic one-piece sheath, bonded to . . .
Sturdy aluminum core

The EPI Bobbin is Better Built

Shown at Booth 44 Knitting Arts Exhibition

The EPI bobbin is built and assembled *from the spindle outward,* with every part machined concentric to the spindle. All parts are permanently locked together with our patented* expanding lock ring assembly. This makes the strongest bobbin you can use for nylon or other tenacious yarns.

Every EPI bobbin is dynamically balanced. Experience has shown that even minute variations in methods and materials used can show up in excessive spindle and machine wear, increased maintenance costs, higher power consumption, and poorer quality yarn. Dynamic balancing plus concentric construction make the EPI a smooth running bobbin.

It will pay you to write, wire, or call for full information on the EPI bobbin.

New England Representative: J. H. Windle, Jr.
231 S. Main St., Providence, R. I.

*U.S. Patent 2,625,343

ENGINEERED *Plastics*

INCORPORATED

Gibsonville, North Carolina

Personal NOTES ABOUT MEN YOU KNOW

(*Continued from page 38*)

James A. McCarthy, assistant secretary.

As the first step in a recently announced plan for decentralization of its operations, Collins & Aikman Corp., New York, N. Y., has named **R. W. McCullough,** assistant to the

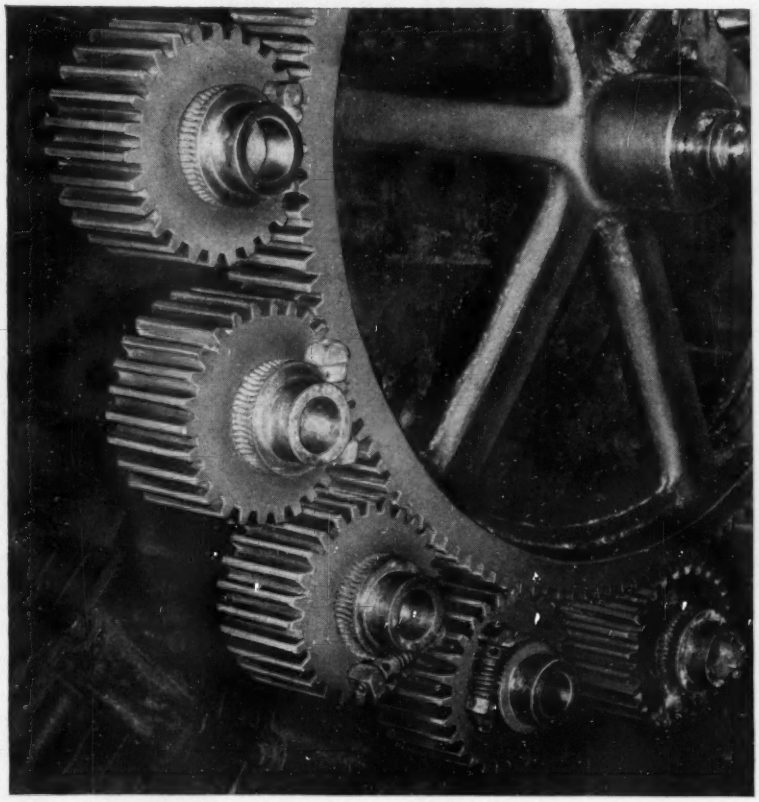
R. W. (left) and D. F. McCullough

president, and **D. F. McCullough,** executive director of sales, executive vice-presidents, respectively, for manufacturing and for sales. **R. P. Baldwin** is vice-president in charge of the Roxboro division with **J. M. Dempsey** as general manager. **P. H. Chance** is vice-president and general manager of the automotive fabrics division with **J. R. Weemhoff** manager of the automotive division and **W. R. Keen** director of manufacturing. **E. Eckert** is general manager of the apparel fabric division. Vice-president and general manager of the Stead & Miller division is **J. R. Nelligan. H. J. Blanchard** is general manager of yarn division; and **F. W. Miller,** general manager of Canadian division.

William Schmottlack, formerly superintendent of dyeing at Goodall-Sanford, Inc., Sanford, Me., is now at the Great Falls Bleachery & Dye Works, Somersworth, N. H., in a similar capacity.

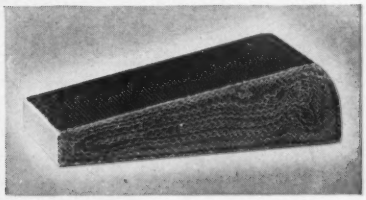
Earl S. Schultz is now purchasing agent and plant engineer at National Worsted Mills, Inc., Jamestown, N. Y.

Recent appointments at Botany Mills, Passiac, N. J., include: **William Schutt,** formerly with Goodall-Sanford, Inc., Sanford, Me., to the newly-created post of worsted fabric manager; **William Hoffman,** previously with Forstman Woolen Co., Passiac, in charge of piece-dyeing; **Ralph Knapp,** with Goodall-Sanford prior to his appointment as director of in-



REDUCE WEAR on large metal gears and reduce noise in textile printing machines with the use of C-D-F Celoron plastic gears. Prior to this use of Celoron, metal gears had to be replaced after twelve to fourteen months' operations. Since installing nine C-D-F Celoron gears over a year ago, there has been no wear on the main gear, no replacement of the C-D-F Celoron gears. Some other applications are still giving excellent service after five years!

ELIMINATE CORROSION, resist wear with C-D-F Celoron pot-eyes for bleachery applications. This low-cost molded product is extremely smooth and strong, has excellent resistance to high heat, moisture, abrasion.



INCREASE MACHINE EFFICIENCY with special C-D-F loom parts. This C-D-F parallel plug has high impact strength, is impervious to oil and water. It does not fracture, chip, delaminate. Two years' life is common.

SAVE MATERIALS with superior C-D-F Roving Cans. For running synthetics, C-D-F makes a rolled fibre rim that eliminates static charge. No chance of snagging or injuring materials. New 15" diameter Diamond Fibre cans are now available!

LOWER mill operating COSTS by wider use of C-D-F plastics

Reduce wear and noise, eliminate corrosion, increase machine efficiency, save materials. That's what these four examples of C-D-F plastics can do for your mill. C-D-F is a leading manufacturer of vulcanized fibre, the long-life material that goes into Diamond Fibre Roving Cans which are famous for quality and their seamless uniformity. C-D-F has years of experience in selling the textile industry, has established its southern headquarters in Spartanburg, S. C. Reasonable prices, superior quality, fast service are part of every order placed with the friendly C-D-F textile sales engineer. If lowering mill operating costs is your responsibility, C-D-F . . . a big reliable source of supply . . . helps you with a complete line of textile industry plastics.

C-D-F MAKES

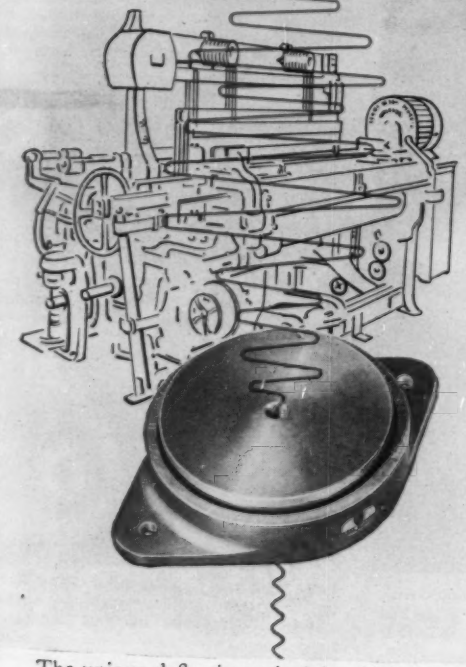
BARRELS
BEARINGS—cloth roll, jig
BOARDS—examining
BOBBINS
BLADES—separator
BOXES—battery filling
bobbin
conditioning
doff
mill
quill
spooler
tote
BUSHINGS—binder
CAMS
CANS—roving waste
COUPLINGS
COVERS
spinning bucket
GEARS—auxiliary
card
coiler head
fitting
motor pinion
quill
picker
spinner
spooler
GUIDES—knife
PICKER—stick parts
PINS—binder
PIRNS
PLATES—lay
PLUGS—parallel
POT—eyes
PULLEYS
RECEPTACLES
ROLLS—lap
ROLLERS
SEPARATORS
SHEETS—bin lining
SHUTTLE PARTS
TABS—binder
TRACK—tenter frame
TRUCKS—cloth
conditioning
doff
filling
quill
spinning
spooler
twisting
waste
winding
TUBES—core sizing
TUBING—spiral
WASHERS

Continental-Diamond Fibre

CONTINENTAL-DIAMOND FIBRE COMPANY
NEWARK 11, DELAWARE

CALL C-D-F SPARTANBURG, Spartanburg 3-6397 for fast service, expert technical help.

Why live with loom VIBRATION?



The unique deflection principle of Silentbloc rubber-in-metal mounts can make loom vibration a thing of the past. Just four units will convert the noisiest loom ever made into a smooth-running, exceptionally quiet machine.

For catalog and details of our free trial plan on Silentbloc rolling joint mounts write to The General Tire & Rubber Company, Industrial Products Division, Dept. G, Wabash, Indiana.

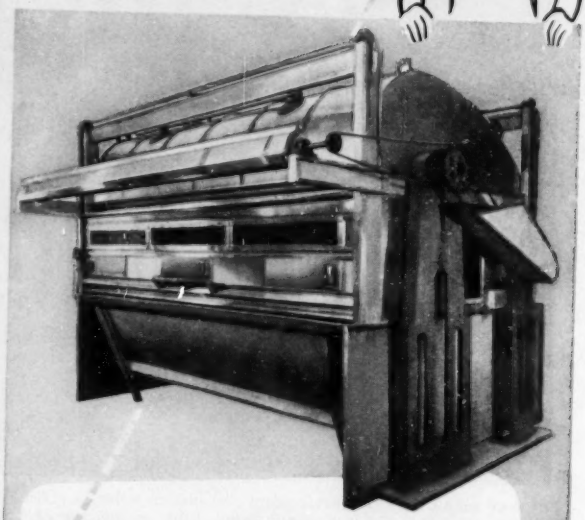
"From Plans to Products in Plastics and Rubber"

These are General Tire Industrial Products now serving Industry

Silentbloc vibration and shock mountings · Silentbloc bushings · Silentbloc bearings · Oil & hydraulic seals · Bonded to metal rubber parts · Hydraulic brake parts · Metal stampings · Extruded & molded rubber · Extruded plastic · Polyester glass laminates · Sponge rubber · Glass run channel · Vibrex® fastners

THE GENERAL TIRE
Industrial Products Division
WABASH INDIANA

3 Features designed for LOW COST DYEING



1 This Dyebox is Fully Enclosed

— to keep heat and moisture where they belong, in the box; to save fuel, steam, water and dyestuffs; . . . to end dyehouse fog; to increase production per man hour; to give you better work.

2 This Dyebox is Stainless Steel

. . . to clean in seconds with a quick rinse; . . . to eliminate boil outs; . . . to end discoloration of fabric; . . . to change from dark to light runs in a few seconds; . . . to give you more runs per day at lower cost.

3 This Dyebox is Blickman Built

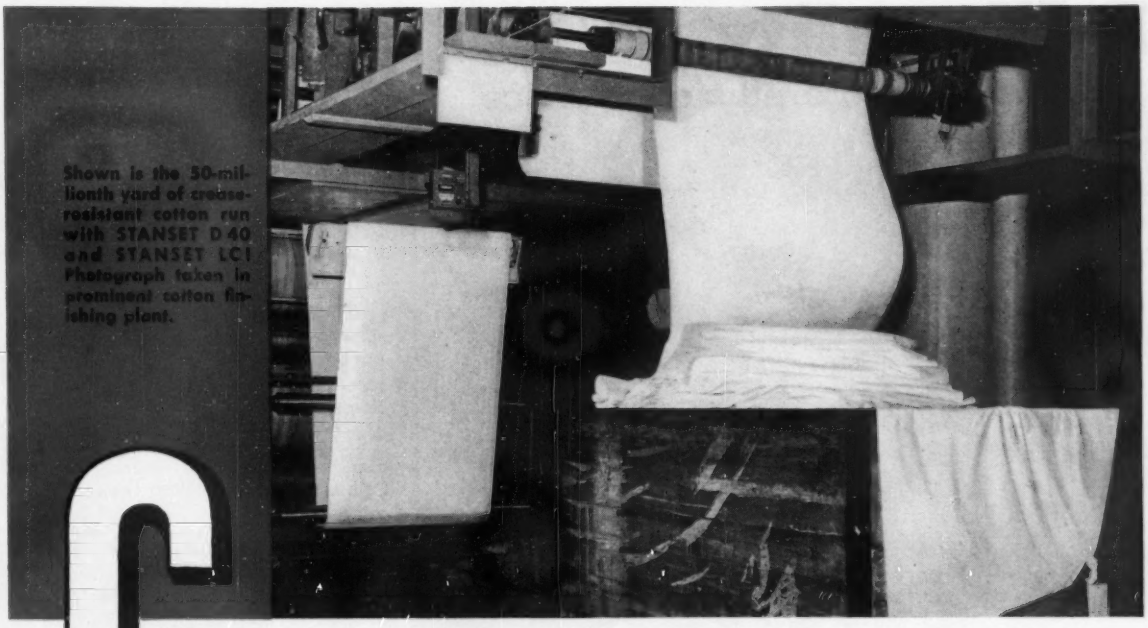
. . . to be as accessible as an open box with none of the disadvantages; . . . to give dyers every design feature for speedier loading, heating, lacing, unloading and changeover; . . . to assure trouble free operation for many years.

Write for bulletin 7034

S. BLICKMAN, INC. GREGORY AVE. WEEHAWKEN, N. J.

Blickman Built
STAINLESS STEEL TEXTILE EQUIPMENT
Dye Boxes, Linings, Cylinders, Dry Cans, Hoods, Tanks

Visit your hospital during National Hospital Week, May 8-14.



Shown is the 50-millionth yard of crease-resistant cotton run with STANSET D 40 and STANSET LC! Photograph taken in prominent cotton finishing plant.

Controlled CHLORINE RETENTION

OF CREASE RESISTANT COTTON FABRICS!

Finished with STANSET LC, millions of yards of white cotton shirting fabrics — as made up by one of the largest shirting manufacturers — have withstood repeated commercial laundering *WITHOUT* noticeable yellowing or significant loss in strength due to the action of chlorine bleaching.

BUILD YOUR OWN TRADE MARK

Leading cotton finishing companies are building valuable reputations for their own important trade marks with STANSET D 40 and STANSET LC.

INCREASED EFFICIENCY

STANSET D 40 and STANSET LC are new, highly efficient cross-linking compounds which *really* set the shrinkage of cotton fabrics with that additional bounce — at low cost!

EXCELLENT PHYSICAL PROPERTIES

Fabrics finished with STANSET D 40 and STANSET LC may be cured over a wide range of temperatures, from 250°F. to 340°F., for 70 to 90 seconds, to fit almost every fabric construction, assuring the highest crease resistance, tensile and tear, in conjunction with CONTROLLED CHLORINE RETENTION.

NEW STANSET EASY TO APPLY

The application of STANSET resins requires no equipment other than that now in use for resin treatment in mills and finishing plants.

WE WELCOME YOUR INQUIRIES ON STANSETS • WRITE OR CALL US TODAY

Our technical representatives are at your service.

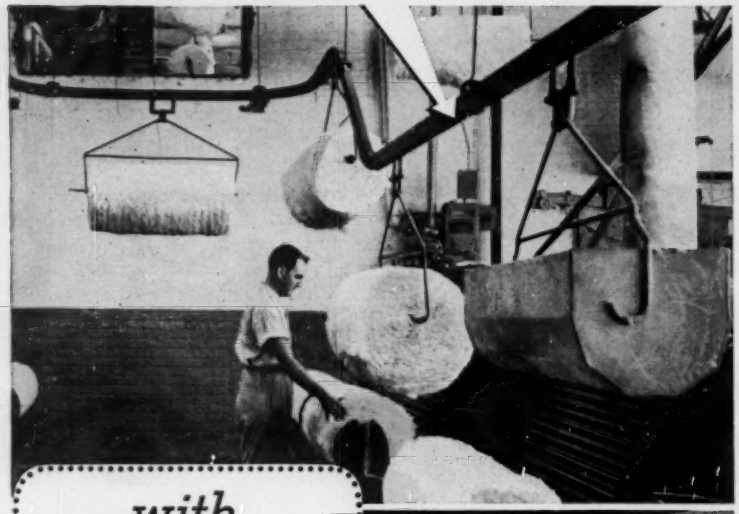
STANDARD CHEMICAL PRODUCTS, Inc.

HOBOKEN, NEW JERSEY · CHARLOTTE, NORTH CAROLINA

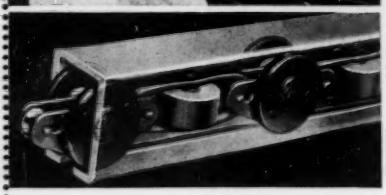
Chattanooga, Tenn. • Paterson, N. J. • Providence, R. I. • Salisbury, N. C.

Sunbury, Pa. • Sacramento, Cal. • Greensboro, N. C. • Greenville, S. C.

R-W quality means longer, safer, more efficient service



with R-W "Zig-Zag"® Continuous Power Conveyors



From the tiniest component to the overall design, Richards-Wilcox ZIG-ZAG Continuous Power Conveyors conform to the most rigorous quality standards. And higher quality pays for itself in the long run with more years of safer, lower-cost service.

Years of trouble-free service . . . more efficient use of plant personnel . . . elimination of bottlenecks . . . are some of the many benefits that R-W ZIG-ZAG Conveyors offer. They take materials handling *overhead*, out of the way, carrying loads up, down, in, out and around, "like water through a pipe". Six-inch pendant centers handle any load a man can lift in continuous production. A choice of drive units permits travel at any required speed with variations of 10 to 1 or better.

ZIG-ZAG Conveyors are unusually flexible, too. When changing conditions require alteration, expansion or relocation of systems, the job can easily be done by plant personnel, usually without waste of a single part.

Quality makes a difference . . . in longer service, more efficient production, lower costs. And quality means Richards-Wilcox ZIG-ZAG Continuous Power Conveyors.

For full information write for Catalog No. A-93

75 YEARS of QUALITY and SERVICE for RICHARDS-WILCOX AURORA, ILLINOIS 1880 1955

Richards-Wilcox Mfg. Co.
MATERIALS HANDLING DIVISION
Branches in Principal Cities

446 W. THIRD STREET, AURORA, ILL. SLIDING DOOR HANGERS & TRACK • FIRE DOORS & FIXTURES • GARAGE DOORS & EQUIPMENT • INDUSTRIAL CONVEYORS & CRANES • SCHOOL WARDROBES & PARTITIONS

Personal NOTES ABOUT MEN YOU KNOW

dustrial engineering; and **Myron Varn**, also with Forstman Woolen, to supervisor of quality control in the finishing department.

Erwin Mills, Durham, N. C., have recently elected **D. St. Pierre duBose** as a director and **Charles R. Walters** to vice-presidency. Mr. Walters is also vice-president of Abney Mills, Greenwood, S. C.

Richard W. Weissblatt recently has been made general manager of Belknap-Sulloway Mills Corp., Laconia, N. H.

Lawrence E. Schall has been named technical coordinator of the Toledo (Ohio) Dye Works section of the Textileather divirion of the General Tire & Rubber Co., Toledo; **Donald C. Williams** has been promoted to production superintendent; and **William D. Lippmann** has been appointed assistant to the general production manager.

A. Lee Parsons, chief clerk of the Committee on Banking and Currency, U.S. Senate, has resigned to take

Mr. Parsons

a staff position with the American Cotton Manufacturers Institute. His new duties will include administrative assistance in the Washington office of the textile trade organization.

President of Fieldcrest Mills, Inc., Spray, N. C., **Harold W. Whitcomb**, was named "Tri-City Man of the Year" by the Leaksville-Spray Exchange Club. Mr. Whitcomb was selected on the basis of his successful direction of the mills, and also his interest and aid to the community, especially the Leaksville hospital.

At the 17th annual convention of the National Cotton Council of America, held recently in Houston, Tex., **William Thomas Wynn** was

(*Continued on page 56*)

So your finishing problem is unique?

IN LESS THAN 5 YEARS AMERICAN CYANAMID CREATED

over 10,000 individual textile finishes

TO MEET OUR CUSTOMERS' SPECIAL PROBLEMS!

We cite these figures not to boast, but to indicate how precisely our finishes meet every customer's individual needs.

Quality and performance of basic Cyanamid products—PERMEL*, SUPERSET*, AEROTEX* and a host of other textile chemicals—have long since become famous in the industry. Now when new fibers or fabric constructions, new blends or fabric stylings, special plant or market conditions require a new approach to the finishing job — Cyanamid spares no effort to help customers achieve the desired finish . . . even when it means developing and *fully testing* a brand new formulation!

WHAT IS YOUR NEED?

• ACCELERATORS • ANTI-STATICS • BODYING AGENTS • CREASE RESISTANT FINISHES • FIRE RETARDANT FINISHES • GAS FADING INHIBITORS • GLAZING, EMBOSSING COMPOUNDS • SHRINKAGE CONTROL AGENTS • SOFTENERS • SPOT & STAIN RESISTANT FINISHES • STIFFENERS • SURFACE ACTIVE AGENTS • WATER REPELLENT FINISHES • WEAR RETARDANTS • WETTING AGENTS

YOU DO BETTER WITH

As the industry's recognized headquarters for textile resin finishes — Cyanamid is in a *unique* position to help: Vast research and development experience, rigid quality controls in manufacturing and application, laboratories and technical personnel second to none — may help you find just the right finish to help sell your merchandise and keep it sold. Call your Cyanamid representative today.

AMERICAN Cyanamid COMPANY

TEXTILE RESIN DEPARTMENT

BOUND BROOK
NEW JERSEY
Tel.—ELliot 6-2000

30 ROCKEFELLER PLAZA
NEW YORK 20, N. Y.
Tel.—Circle 7-0100

BOSTON • PHILADELPHIA • CHICAGO • LOS ANGELES • CHARLOTTE • PROVIDENCE

North American Cyanamid Ltd., Montreal

*T.M. AMERICAN CYANAMID COMPANY

PRODUCERS OF THE WORLD'S FINEST TEXTILE RESINS

TRITON GR-5

THIS NEW WETTING AGENT

ALSO GIVES YOU HIGHLY

EFFECTIVE REWETTING

EVEN AFTER PROLONGED

FABRIC STORAGE

TRITON GR-5 is not only soluble in water in all proportions but is stable—particularly to lime and magnesium salts—and electrolytes. And TRITON GR-5 is economical, too. But that's only half the story.

TRITON GR-5 is an excellent *rewetting* agent. It wets back after it has dried into the fabric, permitting high absorption under normally difficult conditions, and maintaining fabric absorbency through prolonged storage.

What's more, TRITON GR-5 puts a real sales feature into towelings. They are extra absorbent *when new*—don't need usual pre-use washings housewives complain about.

CONSIDER THE SPECIAL FEATURES OF THIS ECONOMICAL NEW WETTING-REWETTING AGENT; THEN CALL YOUR NEAREST ROHM & HAAS OFFICE.

CHEMICALS FOR INDUSTRY

ROHM & HAAS COMPANY

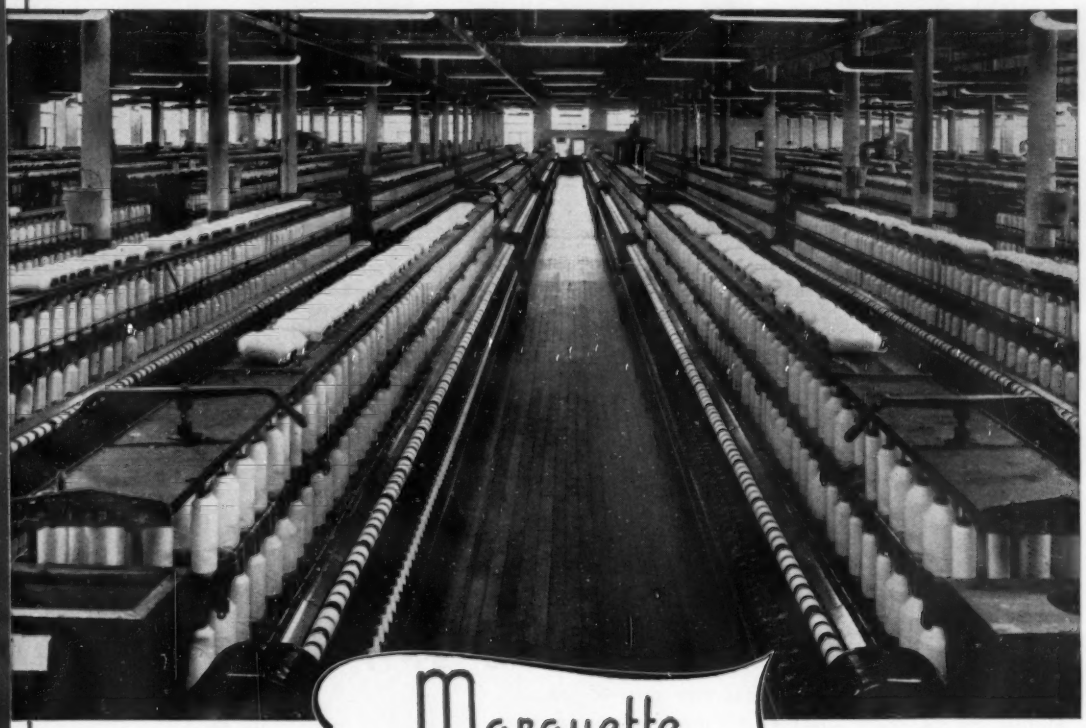
WASHINGTON SQUARE, PHILADELPHIA 5, PA.

Representatives in principal foreign countries

TRITON *is a trade-mark, Reg. U.S. Pat. Off. and in principal foreign countries.*

3/4¢ PER SPINDLE

for replacement parts and repairs



Marquette

ROLLER BEARING SPINDLES with full-floating footstep bearing . . . *for all textiles*

Starting with an installation of 13,800 Marquette Roller Bearing Spindles in 1946, this important South Carolina mill has since purchased a total of ***74,422.***

In all these years they have spent ***only $546*** for replacement parts and repairs—***or $.0073*** ***per spindle!*** Marquette Spindles have other cost-saving features, too. They save on lubrication, tapes and power.

You too can increase your production and reduce your costs. We'll be glad to prove it with a test installation in ***your*** mill.

PROTECTED BY U.S. AND FOREIGN PATENTS AND PATENTS PENDING

The Marquette METAL PRODUCTS COMPANY

CLEVELAND 10, OHIO. • SUBSIDIARY OF CURTISS-WRIGHT CORPORATION

Representatives: WILLIAM P. RUSSELL, BOX 778, ATLANTA, GA. • W. J. HOWELL, ROUTE 2, BESSEMER CITY, N. C.
C. H. WHITE, MOUNT HOLLY RD., ROUTE 6, CHARLOTTE, N. C.

Also Manufacturers of: HYDRAULIC GOVERNORS • PRECISION PARTS AND ASSEMBLIES • WINDSHIELD WIPERS FOR AIRCRAFT
SPRING CLUTCHES • FUEL OIL PUMPS • FUEL OIL INJECTORS • ROTARY HIGH PRESSURE OIL FIELD PUMPING MACHINERY

THE Ritz-Carlton
ON THE BOARDWALK • ATLANTIC CITY

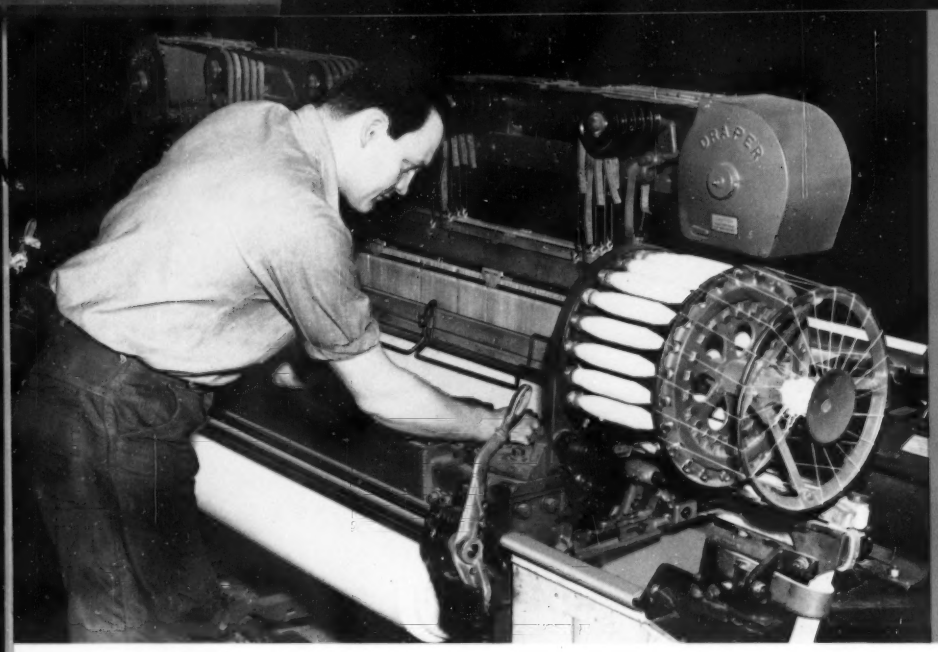
You are Cordially Invited To Make This Distinguished Hotel Your Headquarters During The Knitting Arts Exhibition.

Sponsor Organizations and Members—National Association of Hosiery Manufacturers, Underwear Institute and National Knitted Outerwear Association—will find here every facility for accommodations as required and for entertainment of small or large groups.

- **Write or Phone Mr. Michael McGarry, Vice President and General Manager, for details or reservations.**

The Ritz Carlton is Located Directly On The Boardwalk, Just a "stone's throw" from the Atlantic City Auditorium.

FOR RESERVATIONS: Write... or Phone Atlantic City 4-3051



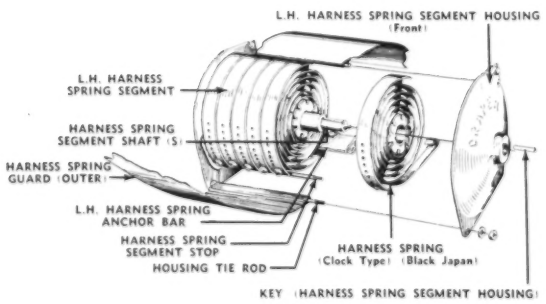
No. 2 of a Series

DRAPER LOOM FIXING

Adjusting Tension of Springs in Draper Clock Spring Tops

The Draper Clock Spring Top Motion is designed to give smooth, easy action with reduced wear on component parts.

Clock Spring Tops are adjusted to have proper spring tension for most weaves when they are assembled in the Draper plant.


L.H. HARNESS SPRING SEGMENT HOUSING (Front)
L.H. HARNESS SPRING SEGMENT
HARNESS SPRING SEGMENT SHAFT (S)
HARNESS SPRING GUARD (OUTER)
L.H. HARNESS SPRING ANCHOR BAR
HARNESS SPRING SEGMENT STOP
HOUSING TIE ROD
HARNESS SPRING (Clock Type) (Black Japan)
KEY (HARNESS SPRING SEGMENT HOUSING)

Extra heavy weaves, however, may require additional harness tension.

Each Harness Spring is equipped with a Harness Spring Segment having a notched center hub into which the inner end of the spring is inserted. By changing the location of the Spring in these notches, the Harness Spring tension may be changed.

If it becomes necessary to increase the Spring tension, the Clock Spring Top must be disassembled. To disassemble the Clock Spring proceed as follows:

1. Swing back the Harness Spring Guard (Outer), exposing the Springs.
2. Release Harness Springs at Anchor Bar.
3. Loosen headless set screw at back end of Stop and remove Harness Spring Segment stop.
4. Remove Harness Segment Spring Housing (Front) by loosening Allen safety set screw and also removing hexagonal nut and lock washer on same side of Clock Spring Top.
5. Remove all Harness Springs and Harness Spring Segments from Harness Spring Segment Shaft.
6. Starting with back Spring, set end of each Spring in proper notch of Harness Spring Segment to give desired tension. (Moving the end of the Spring one notch to the left increases Harness tension approximately 6 pounds.)

   NOTE OF CAUTION: To avoid overloading Springs, which could lead to Spring breakage, **tension on Springs should never be increased by taking up more than two notches.**
7. Reassemble Clock Spring Top by reversing the operations for disassembling.
   When reassembling Springs, coat with light grease or oil to prevent rusting.

DRAPER CORPORATION

Advertising Department (T12)
Hopedale, Massachusetts

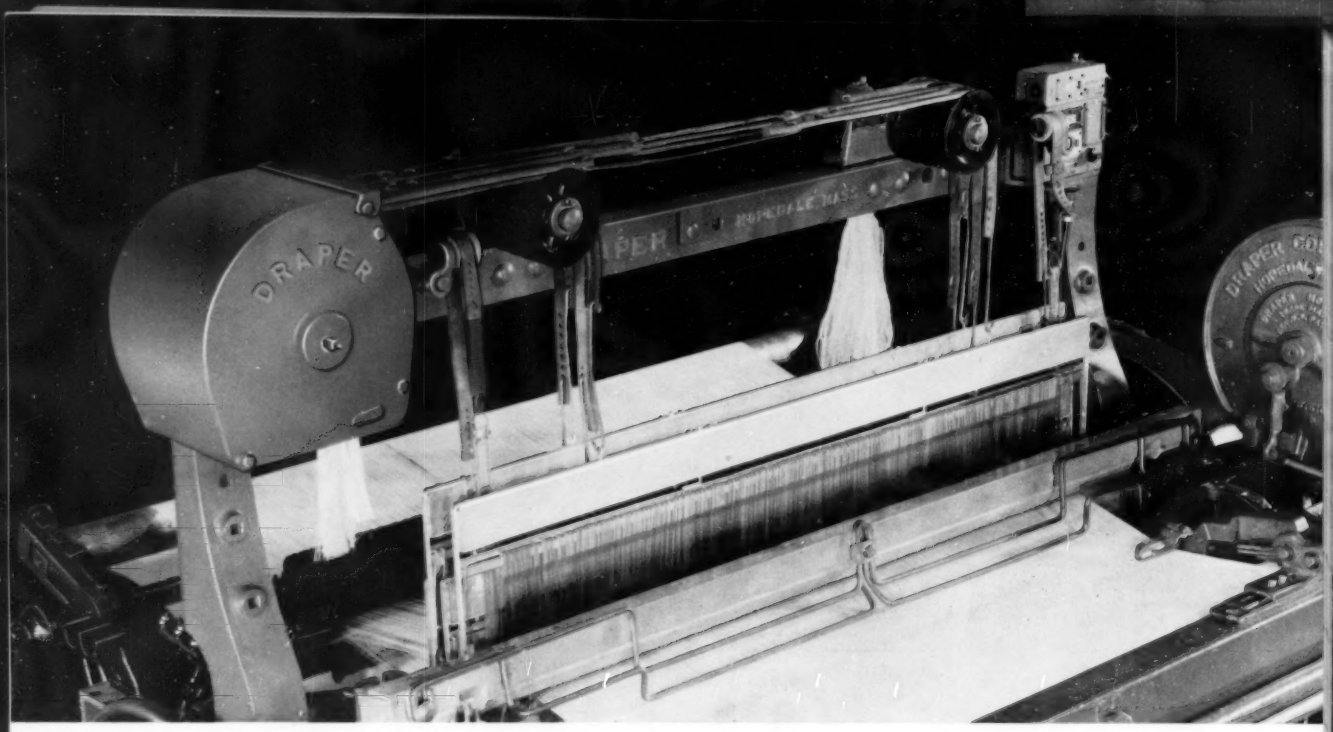
Please add my name to your Loom Fixers list to receive Draper Setting Instructions.

Name _____

Position _____

Company _____

Address _____



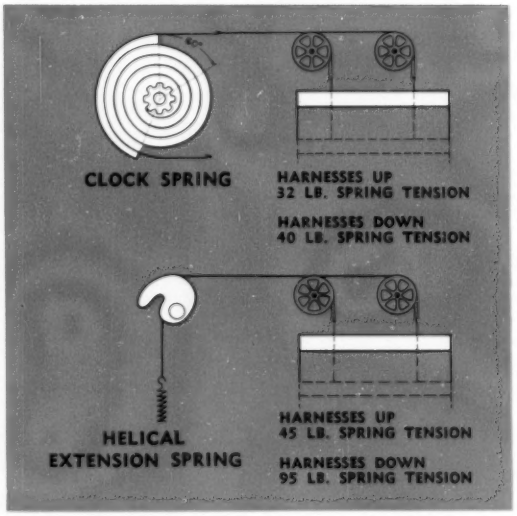
7 YEARS NO BREAKAGE

—that's the report, as confirmed by our records, of one Southern mill using Draper Clock Spring Top Motions since 1947.

Practical design and precision manufacturing methods are the reasons why so many mills using Draper Clock Spring Tops are reporting **little or no spring failure.**

Unlike the Helical Extension Type Spring, the wide flat design of the Clock Spring permits a greater distribution of metal. This makes it possible to keep spring loads within the safe stress range.

The totally enclosed Clock Spring Top Motion with its easy harness action reduces wear on all component parts, increases production and lowers costs.



With Clock Spring Top, spring tension increases 8 lbs. or 25%.

With Helical Spring Top, initial tension is higher and spring tension increases an additional 50 lbs. or 111%.

DRAPER CORPORATION

HOPEDALE, MASS.

ATLANTA, GA.
GREENSBORO, N. C.
SPARTANBURG, S. C.

New... from Du Pont: "SEVRON"* dyes that give stay-bright colors to "ORLON"† and "ORLON" and Wool blends

Bright colors for "ORLON" and "ORLON"-wool blends keep their beauty with Du Pont "SEVRON" dyes. Developed *specifically* for "ORLON", these dyes give good light fastness and excellent wash fastness. Level dyeings in a wide range of colors mean bright shades may be duplicated easily from run to run.

A major advance in dyeing "ORLON" and other acrylic fibers, "SEVRON" dyes have a direct affinity for "ORLON" Type 42 fiber. You can apply them directly to stock, top, yarn and piece goods without using the copper method. They give excellent build-up in heavy shades, too. So specify "SEVRON" dyes by Du Pont the next time you dye "ORLON":

"SEVRON" Yellow L	"SEVRON" Blue B
"SEVRON" Yellow R	"SEVRON" Blue 2G
"SEVRON" Brilliant Red 4G	"SEVRON" Green B
"SEVRON" Red L	"SEVRON" Orange L

Let us work with you on your dyeing problems with any of the new fibers or blends of the new and old. For technical aid, simply write to E. I. du Pont de Nemours & Co. (Inc.), Dyes and Chemicals Division, Wilmington 98, Delaware.

* *Trade-mark*

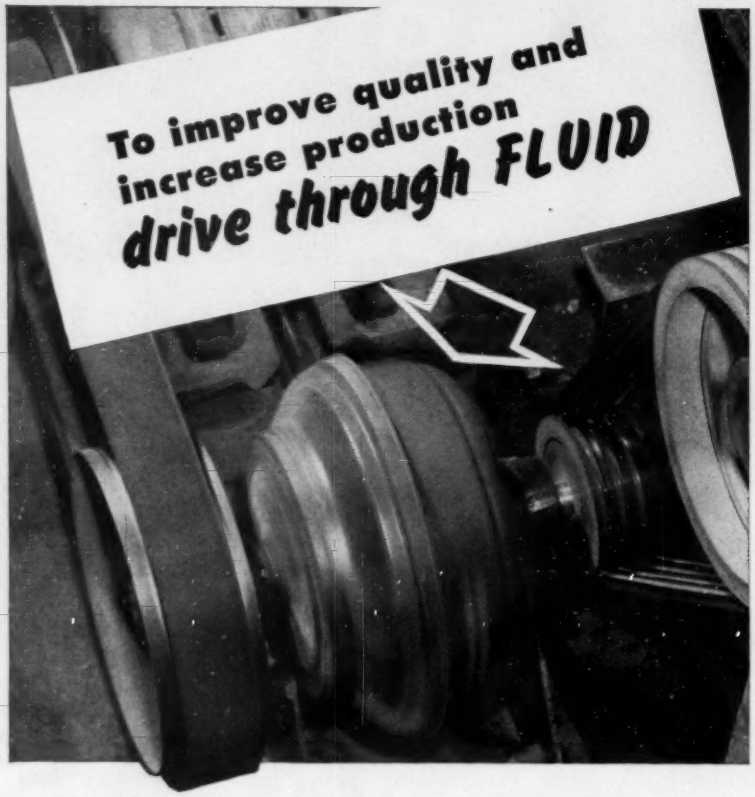
† *"ORLON" is Du Pont's trade-mark for its acrylic fiber.*

Du Pont Dyes

DU PONT

REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY



The HYDRO-WYND® Drive, typical of the wide variety of Fluid Coupling applications developed by Twin Disc. By automatically maintaining predetermined tensions while roll rpm decreases and roll diameter increases, the HYDRO-WYND masterminds winding and tensioning operations.

On literally *thousands* of powered installations in textile plants, textile producers have *improved* product quality and *increased* production *by driving equipment through Twin Disc Fluid Couplings.* They have been profitably applied on spinning frames, garnett machines, friction calenders, card drives, tenter frames, embossers, twisters, finishers, winders, and many, many others.

Here, briefly, is how they did it: by having the Fluid Couplings installed between power source and driven equipment, they *eliminated* mechanical connection. Thus through the cushioned drive of *fluid,* they *eliminated* the jerks, jams, vibrations, and overloads that cause end-breaking, snapping, plugging, and stretching *plus* motor burn-outs and equipment damage. In many cases, they were able to replace motors selected for starting requirements with lower-cost motors selected for *running* requirements. And through the Twin Disc *Twin-Circuit* design, they are getting *full input torque transmitted at all times.*

Whatever type equipment is giving you a problem through mechanical drive, in all probability Twin Disc can *solve* it . . . *with a complete line of Fluid Couplings for ¾ to 850 horsepower.* For further information on how Fluid Couplings can solve your specific problems, write Dept DS, Racine, Wisc.

TWIN DISC
CLUTCHES AND HYDRAULIC DRIVES

TWIN DISC
Fluid Couplings

TWIN DISC CLUTCH COMPANY, Racine, Wisconsin • HYDRAULIC DIVISION, Rockford, Illinois

Branches or Sales Engineering Offices: Cleveland • Dallas • Detroit • Los Angeles • Newark • New Orleans • Seattle • Tulsa

Personal NOTES ABOUT MEN YOU KNOW

(*Continued from page 48*)

elected president of the council. Mr. Wynn is a farmer and lawyer, as well as a textilist, from Greenville, Miss. Included on the 1955 board of directors are **A. B. Emmert** of Danville, **Charles C. Hertwig** of Macon, Ga.; **J. Craig Smith** of Sylacauga, Ala.; **Fred W. Symmes** of Greenville, S. C.; and **A. K. Winget** of Albemarle, N. C.

Obituaries

Frank T. Byrne, president of T. F. Byrne Corp., Phoenixville, Pa.

James Groves, retired secretary and treasurer of Wiscassett Mills Co., Albemarle, N. C.

Edgar S. Kennedy, 57, director of the Textile Research Department of the American Viscose Corp., Philadelphia, Pa.

Matt Denning, 58, retired manager of the finishes division of E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.

William Kinder, 78, retired superintendent of Queen City Cotton Co., Tutalex Corp., Burlington, Vt.

John D. MacAulay, 83, retired foreman at Coosa plant, Piedmont, Ala. of Standard-Coosa-Thatcher Co.

John J. Petroske, former manager of Patchogue-Plymouth Mill Corp., Plymouth, N. Y.

Robert S. Phillips, president Phillips Knitting Mills, Royersford, Pa.

John Willingham, Sr., 67, founder and president of the Egan Cotton Mills, College Park, Ga., and former vice-president of Piedmont Cotton Mills, East Point, Ga.

W. Claude Withers, 76, retired superintendent of Groves Thread Co. Inc., Gastonia, N. C.

David Jennings, retired president and director of Aragon-Baldwin Cotton Mills, subsidiary of J. P. Stevens & Co., Inc.

Frank R. Storm, 57, former president of the Mid-Valley Textile Corp., Peckville, Pa. and vice-president of the Clearview Textile Corp., Scranton, Pa.

Herman Gelberg, 54, retired general manager of the Astor Knitting Mills, Reading, Pa.

Robert H. McCarthy, Jr., 35, assistant secretary of Faith Mills, Inc., Averill Park, N. Y.

"HOLYOKE"
CALENDER ROLLS

Established 1863

HOLYOKE MACHINE COMPANY

CALENDER ROLLS for the PAPER and TEXTILE INDUSTRIES
WATER FILTRATION EQUIPMENT
HOLYOKE, MASSACHUSETTS

What the TEXTILE MILLS are doing

Ames Textile Corp., Lowell, Mass., plans to liquidate the real estate and manufacturing operations of its worsted mill in Southbridge, Mass., but intends to continue the plant's dyeing and finishing department under a lease-back arrangement.

A half-million-dollar building, with an area of 80,000 sq ft is planned for Forsyth, Ga., to be occupied by **Artloom Carpet Co.,** Philadelphia, Pa., for the manufacture of carpets and rugs. * * * The firm has purchased about 25 acres of land on the Kynches River in Effingham, S. C., and contemplates locating a new carpet plant there.

Ansonia Mills, Inc., East Taunton, Mass., was recently purchased by Leonard K. Berkowitz and David F. Squire, both of whom have been operating the mill since 1950 as vice-presidents. Mr. Berkowitz is chairman of the board and treasurer with responsibility for purchasing and manufacturing, and Mr. Squire is president with the control of sales and merchandising. Operations are continuing as usual.

Bachmann Uxbridge Worsted Corp., Uxbridge, Mass., has sold the **Killingly Worsted Mill,** Stony Point, N. C., to the James J. Axelrod Foundation, Woonsocket, R. I. The plant, which contains about 4,932 worsted spindles and 24 broadlooms, will be operated by **Airedale Worsted Mills, Inc.,** Woonsocket.

Beaunit Mills, Inc., New York, N. Y., recently placed in operation a $2,000,000 tricot manufacturing plant in Puerto Rico. Located at Humacao, the new facility is utilizing the services of about 150 Puerto Ricans. It is expected that the plant's $3,500,000 annual production will be absorbed entirely by garment factories on the island.

Aetna Realty Co., New York, N. Y., has purchased the **Beaver Creek Weaving Co.,** Booneville, N. C., plant with plans to lease it to another textile operator. It is expected that the plant will be reopened shortly.

Berkshire Fine Spinning Associates, Providence, R. I., with mills in Rhode Island, Massachusetts, and Vermont, and Hathaway Manufacturing Co., New Bedford, Mass., have reached an agreement to merge the two companies under the name of **Berkshire Hathaway Inc.**

Mooresville, N. C., is to be the site of a new branch of the **Chemspun Yarns, Ltd.,** Brooklyn, N. Y. The new plant will be a fancy twisting mill, producing novelty yarn; some spinning will be done, too. Synthetics, worsteds, and blends will be processed.

Bigelow-Sanford Carpet Co. is consolidating its carpet manufacturing

NON-FLUID OIL
TRADE MARK REGISTERED

LASTS 3-TIMES LONGER IN LOOM BEARINGS!

Dripping liquid oils spoil goods and go to waste. NON-FLUID OIL stays *in* loom bearings and off goods—lasts three times longer.

Mills save on oil—on application costs—on spoilage loss—loom production goes up—with NON-FLUID OIL.

See in action the lubricant preferred by 7 out of 10 leading mills. Send for free testing sample of NON-FLUID OIL.

TI

NEW YORK & NEW JERSEY LUBRICANT COMPANY
292 MADISON AVENUE, NEW YORK 17, NEW YORK
Works: Newark, N. J.—Warehouses and representatives in principal industrial centers

Please send me, without obligation, a free testing sample of NON-FLUID OIL.

NAME_____ TITLE_____

FIRM_____

ADDRESS_____

TYPE OF MACHINERY_____

COMPARISON PROVES THE

SAFETY

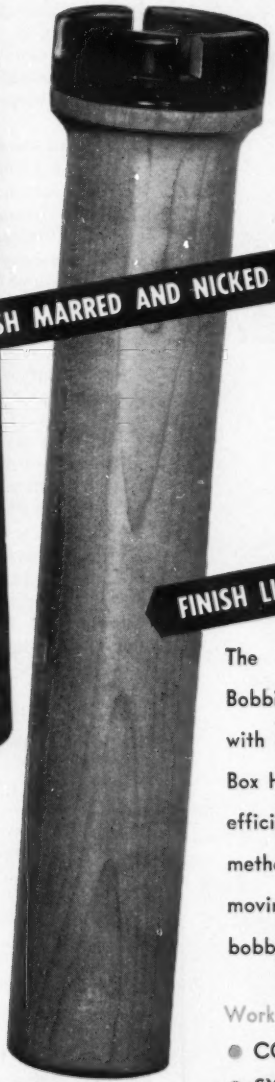
OF THE NEW MODERN

TYPE M

ROVING BOBBIN CLEANER

NO. 1

FINISH MARRED AND NICKED

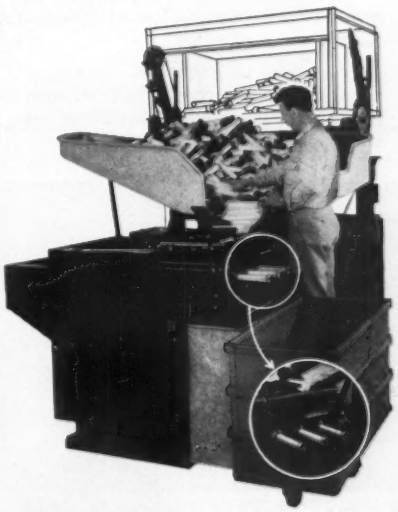


NO. 2

FINISH LIKE NEW

Note the scratches and nicks on bobbin No. 1. They are the result of obsolete cleaning methods. Compare it with the finish on bobbin No. 2 which is in perfect condition, after repeated cleanings on the New Type M Roving Bobbin Cleaner. This modern machine removes waste with jaws of a new design, so shaped they **cannot nick or mar the finish.**

The New Type M Roving Bobbin Cleaning Machine, with the labor-saving Bobbin Box Hoist, is the safest, most efficient, most economical method ever devised for removing waste from roving bobbins.



Works equally well on

- COTTON
- SYNTHETICS
- WOOL

Consult Terrell for additional detailed information, or to survey your bobbin cleaning requirements.

THE Terrell

MACHINE COMPANY, INCORPORATED **CHARLOTTE, NORTH CAROLINA**

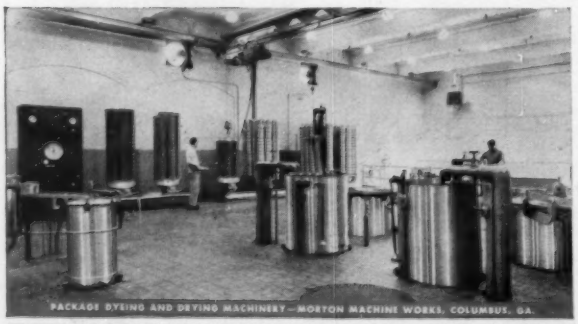
"THEM* DAYS ARE GONE FOREVER"

The Dyer: From a Woodcut, 1568

The forty-hour week was a thing unheard of in those days. The old gentleman above was plenty tired and hungry because he was forced to apply colors the hard way. Fortunately, modern MORTON SYSTEM DYEING MACHINERY has changed all this.

With the MORTON SYSTEM, packages or raw stock may be dyed evenly, automatically, economically and in a minimum of time. The installation shown below is in daily production on yarn wound on Barber-Coleman cheeses for use in fancy ladies' dress goods.

Any size lot of packaged yarn or any number of beams may be dyed in a common dyebath or operated as single units on separate colors. Excellent for large lots, just right for small lots of different colors.



PACKAGE DYEING AND DRYING MACHINERY—MORTON MACHINE WORKS, COLUMBUS, GA.

THE MORTON SYSTEM DYEING MACHINERY

MORTON

MACHINE WORKS, INC.

COLUMBUS, GEORGIA U. S. A.

What the TEXTILE MILLS are doing

in Thompsonville, Conn., by a gradual move of all allied activities from Amsterdam, N. Y. Operations with reinforced plastics are continuing at Amsterdam, and probably other non-carpet activities will be moved there.

Newly incorporated textile mill in Lincolnton, N. C., is **Bonview Mills.** Albert L. Goldsmith, Terrell H. Wilkinson, and Marvin T. Leatherman are the incorporators.

Bowphil Hosiery Co., a firm which finishes argyles, dress hosiery, and low-end cotton goods in Hickory, N. C., has purchased the hosiery dyeing and boarding and cuffing equipment of the **Downey-Fails Supply Co.** At present Bowphil occupies the Downey-Fails building, but is seeking a new location.

New name of the **Burlington Mills Corp.,** voted recently by the stockholders, is **Burlington Industries, Inc.** It will serve as over-all parent company embracing Burlington Mills and its affiliated and subsidiary companies. * * * Plans have recently been announced for a $2,000,000 improvement program affecting the four Burlington plants in Gaston County, N. C. The program will include an expenditure of $1,000,000 immediately and an additional $1,000,000 over a two- to three-year period.

Capitol Knitting Mills, a new firm producing knitted trims, has leased 5,000 sq ft of space at Westmoreland and Collins streets in Philadelphia, Pa., for their operation. Albert Marder, former president of Cotton Knit Sales, New York, N. Y., and Sam Gordesky are owners.

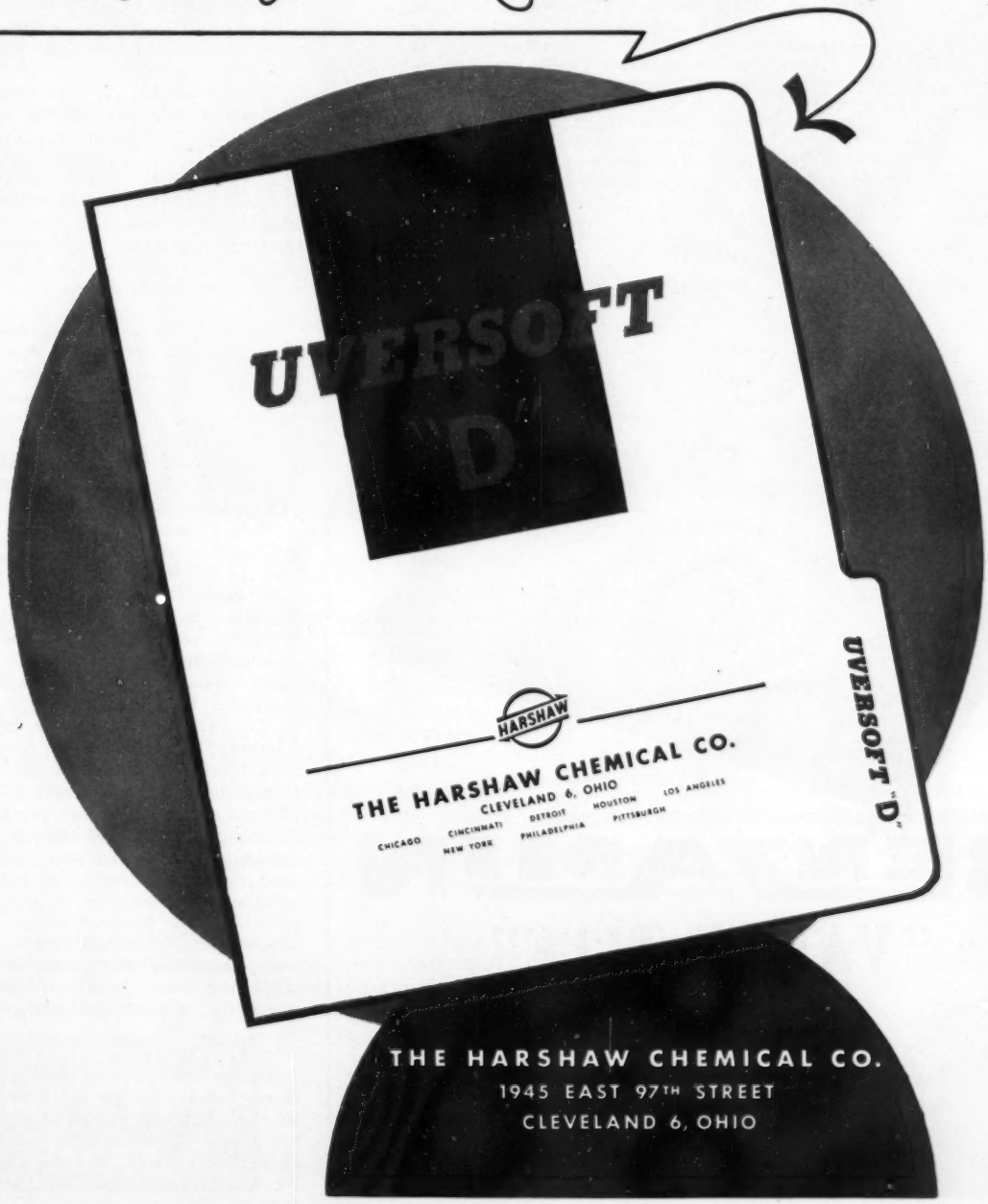
Clearview Textile Corp. of Scranton, Pa., is now in production on a new process for making "stretch" nylon and Dacron yarns. These production facilities are being made available to the trade on the basis of commission throwing, and orders are now being accepted on various constructions. Announcement of a new name for "stretch" yarns processed by Clearview will be made shortly.

Plans for decentralizing the operations of **Collins & Aikman Corp.,** New York, N. Y., were announced recently. Under the new set-up, which

UVERSOFT "D"

is an extremely powerful softening agent

Send for this folder containing complete technical information



Can't rust out!

no cracks or crevices... no place for rust to get a foothold... seamless, one-piece housing with unbroken surface of "Life-Time" Porcelain Enamel!

No service breaks due to humidity!

poor lamp-starting eliminated... electric contacts protected from corrosion... light-reducing dirt sealed out

Benjamin "Vapor-Tite" Units make it possible to provide modern fluorescent lighting for locations with moisture-laden atmospheres. They are specifically built to combat the corrosive effects of such humid workplaces as textile mills, laundries, bottling plants, food processing operations, etc. A solid armor of porcelain enamel defies humidity, steam, dirt and vapors. This is the "Life-Time" surface that cannot wear, scratch, become dull, deteriorate or corrode because it is literally "glass fused to steel".

Get up-to-date information on fluorescent lighting that defies humidity... ask for Bulletin VT. Benjamin Electric Mfg. Co., Dept. TI, Des Plaines, Ill.

available with this exclusive **Benjamin "Springlox" Lampholder** for two or three 48" bi-pin or single-pin fluorescent lamps.

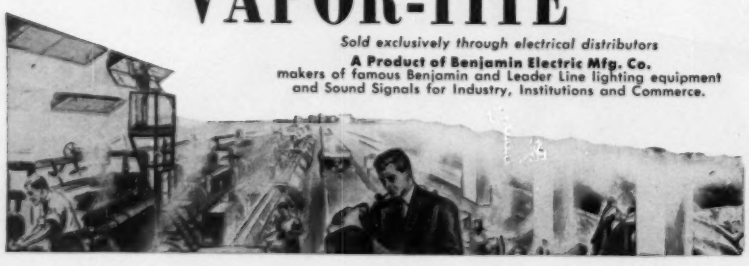
BENJAMIN TRADE MARK

682

"VAPOR-TITE"

Sold exclusively through electrical distributors

A Product of Benjamin Electric Mfg. Co.
makers of famous Benjamin and Leader Line lighting equipment and Sound Signals for Industry, Institutions and Commerce.



What the TEXTILE MILLS are doing

will go into effect during the current year, each division will function independently as a completely integrated business, with its own production, styling, and sales facilities and its own management. According to the announcement, decentralization will greatly improve the firm's flexibility of operations and is essential for future plans for expansion. The new divisions are: Roxboro, Automotive Fabric, Apparel Fabric, Stead & Miller, Yarn, Canadian. Each will be headed by a general manager and will operate as a separate financial entity.

A new two-story plant and office building has been planned by **Crown Hosiery Mills, Inc.,** High Point, N. C. Announcements say the additions will cost $125,000 and will add 25,000 sq ft to the present facilities.

The Julius Kayser & Co., subsidiary, **Fairview Mills, Inc.,** Fountain Inn., S. C., is completing a new addition which makes room for installing 12 more tricot knitting machines. Also, about $100,000 worth of new dyeing equipment is being installed. As a result of the expansion program, it is expected that there will be about a 10 to 15 per cent increase in employment in the plant.

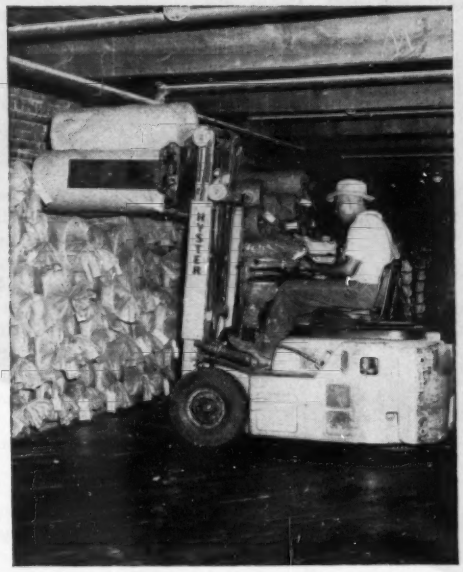
A new Methodist Church for Fieldale, Va., which has been in the blueprint stage for some time, is scheduled to be constructed in the near future on land donated by **Fieldcrest Mills.** * * * Miss Mollie B. Lea, who threads shuttles in the Synthetic Fabrics Mill, was honored at a luncheon recently as the first woman to complete 50 years of continuous service with the company. President Harold W. Whitcomb presented her a diamond and gold 50-year service pin commemorating the occasion and cited the outstanding record of four members of the Lea family at the Synthetics Fabrics Mill whose combined continuous service totals 170 years. Miss Lea's sister, Annie, has 49 years continuous service.

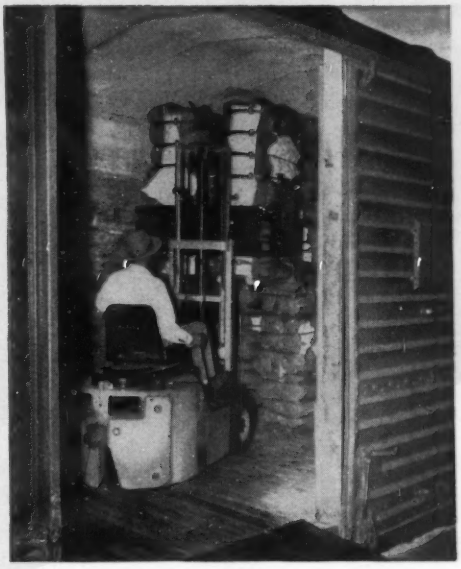
Herlich Knitting Mills, Inc., a firm recently organized for the manufacture of men's and women's sweaters, has leased 27,000 sq ft of space at 15 N. 26th Street in Philadelphia, Pa. Six full-fashioned and 14 Jac-

GETS MORE WORK DONE

because it's *FASTER!*

in factories • warehouses • boxcars • docks • loading platforms





HYSTER QN-20 (2000 LB.*) LIFT TRUCK OFFERS *FASTEST* TRAVEL SPEED, *FASTEST* LIFT SPEED *PLUS* EASIEST STEERING

All over the world today the Hyster® QN-20 is proving that faster travel and lift speeds are important factors in getting more work out of a lift truck. No other lift truck today equals the QN-20 in speed (see chart at right).

Other reasons for QN-20 getting more work done: Less time out for maintenance; rugged construction, which greatly reduces "downtime"; easiest steering, which gives driver more confidence; unusual maneuverability that permits truck to get around faster through crowded quarters inside and outside.

You can buy a QN-20 on easy terms to suit *you*, or you can lease from one to five years, even without a down payment. Your Hyster Dealer will work out a "personalized" finance plan that will make it possible for you to pay off truck out of the savings it makes for you.

COMPARISON OF SPEEDS	HYSTER QN-20	TRUCK A	TRUCK B	TRUCK C	TRUCK D
MAX. TRAVEL SPEED (MPH)	12	8.5	8.5	9	10
LIFT SPEED LOADED (Feet per min.)	55	44	40	37	40

There's the right Hyster Job-Attachment for *your* job ...another reason why the QN-20 is one of the most versatile lift trucks in the world. (Cushion tires optional). Call your Hyster Dealer *today*. He will show you the advantages of a new QN-20 on *your* job.

* Also available in 1000-lb. capacity.

THERE'S PROFIT IN HYSTER POWER

HYSTER COMPANY

2902-57 N. E. CLACKAMAS STREET.....PORTLAND 8, OREGON
1010-57 MYERS STREET.....DANVILLE, ILLINOIS
HYSTER N.V. .....NIJMEGEN, THE NETHERLANDS

Four Factories: Portland, Oregon; Danville, Illinois; Peoria, Illinois; Nijmegen, The Netherlands

HYSTER

SHOULD THIS MAN BE ON MANAGEMENT'S TEAM?

This man belongs to one of the most important groups of employees in any mill—the Fixer Group. He's a KEY man. Other employees look up to him and follow his example.

What would be the results in your mill if your Grinders, Section Men and Fixers took a greater interest in their jobs? . . . If they had a clear realization that the production of quality cloth—sold at a profit in a competitive market—is a cooperative project between Management and Employees? . . . That each must do its job well, if each is to benefit?

Wishful thinking? Not at all. Fixers *will* take a greater interest in their jobs if you can *sell* them on the need. Just telling them that the need exists won't do it. You have an educational job to do.

These men need to be taught the fundamentals of your mill's economy . . . WHY quality must be maintained or improved . . . WHY production must be more efficient . . . WHY cost must be reduced through less waste, better use of supplies, preventive maintenance, and all-round better fixing.

Other mills are using our twelve hour group training program for Fixers to help them do this job. We will be glad to furnish details and cost to you without obligation.

SOUTHEASTERN ENGINEERING CO.

WEST POINT, GEORGIA

What the TEXTILE MILLS are doing

quard knitting machines are in operation. Officers of the firm are Sam Herlich, president, Martin Titleman, vice-president; and Irwin Shapiro, secretary-treasurer.

A modernization program directed toward the improvement of machine efficiency has been launched at **Huntsville (Ala.) Manufacturing Co.** Plans call for the installation of several types of new machinery, the reworking of machines now in operation, interior improvements, and others, such as the installation of air conditioning.

The Kendall Co., Walpole, Mass., intends to erect a new finishing plant at Bethune, S. C., with construction scheduled to begin this spring. Detailed plans are still incomplete, but it is expected that the plant will be a one-story structure providing about 300,000 sq ft of manufacturing and storage space. The Kendall Mills Finishing Division of the company will operate the plant which will utilize the services of about 220 people.

In January of this year, **C. H. Masland & Sons,** Carlisle, Pa. established a suggestion system, the basic purpose of which is to promote new or better methods of manufacturing their products through development of ideas submitted by employees which will aid in the progress and efficiency of the company. The ideas can be new and original or propose a new application of an old idea, and can apply to any department in the mill or office. Only qualification — they must be constructive! * * * This carpet manufacturer has "retired" the "big print machine" which had been in operation since 1927, signaling the discontinuance of production of their printed carpet.

A new mill now operating at Adams Ave. and Leiper St., Philadelphia, Pa., is **Monarch Textiles, Inc.,** which is processing synthetic yarns on commission and also selling direct to the knitting, weaving, and allied trades.

An option to lease, with the privilege of buying, the former main building of Corbitt Truck Manufacturing Co., Henderson, N. C., is currently held by **Mount Hope Finishing Co., Inc.,** Butner, N. C. Robert

(*Continued on page 247*)

Monsanto
TEXTILE
TALK

NEW STAR

joins Monsanto's famous team of catalysts!

AC-6 steps up curing efficiency as much as 25%

Resin-finished textiles can now be cured more rapidly—more efficiently.

New AC-6 was formulated by Monsanto for faster catalytic action. It lets you approach complete resin utilization at the lowest possible cure cycle.

Uniformity of resin application is assured by its relatively long bath life. Catalyst AC-6 also permits full development of fabric properties. There is minimum resin add-on—minimum danger of odor formation.

You get all this—and economy, too. Increased catalytic activity is combined with low product cost.

AC-6 is compatible in resin baths with urea formaldehyde, methylated methylol melamine, modified urea resins, and most cationic, anionic and non-ionic softeners and penetrants.

In mill runs on cotton fabric, Catalyst AC-6 has demonstrated its ability to outperform other catalytic agents. When AC-6 was added to the bath, identical fabrics showed superior emboss durability, gloss retention and wrinkle recovery.

Mail coupon today for technical bulletin and sample bottle of Catalyst AC-6.

For faster, low-cost curing . . .

CATALYST AC-6

MONSANTO

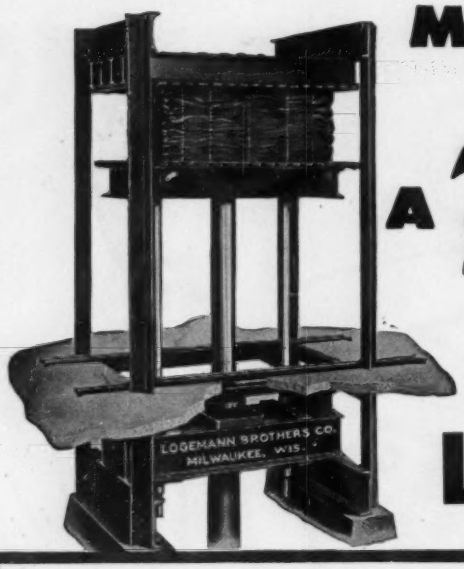
Monsanto Chemical Company, Plastics Division
Dept. TI-4, Springfield 2, Massachusetts
Please send me, without obligation, the technical bulletin on new Catalyst AC-6, and 8-oz. sample bottle.

Name_____

Company_____

Address_____

City_____ Zone_____ State_____



MAKE YOUR BALING A *Profitable* OPERATION

with dependable

LOGEMANN BALING PRESSES

Open balers for finished goods may be hydraulic or power-driven. Give platen dimensions required, maximum height of pile to be compressed, number of bales per hour, when requesting information on open balers.

Tell Us Your Baling Problems

That's the best way to get the right answers to low-cost time-saving baling. During our sixty years of building balers for the textile industry we've solved many a baling problem for mill owners. Our engineers know how to make baling operations pay their own way in time and labor-savings, in speedier, more reliable handling of bales, in lower maintenance cost. Many Logemann balers have been in profitable operation since the turn of the century—evidence of the ruggedness, durability, and long service life of Logemann baling presses.

In the interests of better baling operations in your plant, find out what Logemann balers can do for you. Tell us what your specific problem is. We'll gladly show you how it can be answered in terms of better bales at lower costs and make a specific recommendation based on your requirements. Write for information today.

Box balers for waste may be obtained in either the hydraulic or power-driven type. Mention the kind of waste to be baled, how much in how many hours, the preferred size or weight of bale when inquiring about box balers.

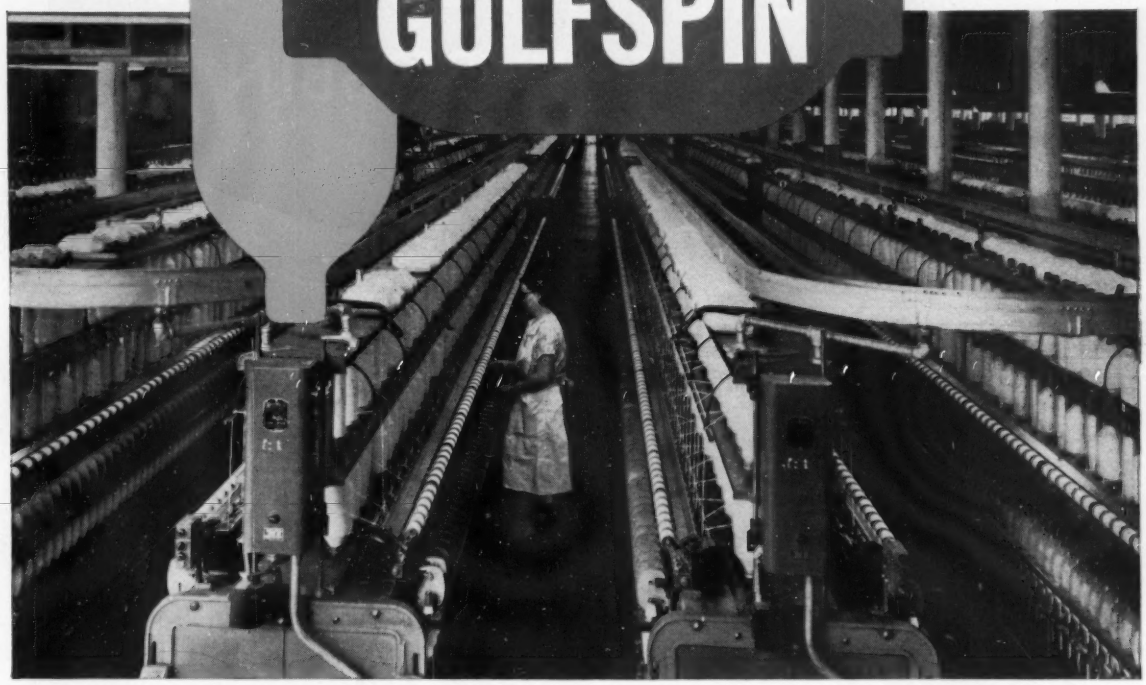
LOGEMANN BROTHERS CO.

3102 West Burleigh Street • • • Milwaukee 10, Wisconsin

Keep spindles spinning true

with

GULFSPIN



Keep your spindles spinning true with a minimum of vibration and drag. Use Gulfspin, the spindle oil that resists sludge formation, that holds contaminants in suspension so they do not deposit on spindle parts, and that provides effective protection against rust.

You also reduce power costs with Gulfspin. Ordinary spindle oils often thicken after a few months of service, requiring increased power. Gulfspin shows no increase in viscosity after many months of service.

You'll find that these advantages all add up to smoother spindle operation, fewer ends down, and rock-bottom maintenance and power costs.

Contact a Gulf Sales Engineer at your nearest Gulf office today and give him a chance to prove the superiority of Gulfspin on your frames.

Gulf Oil Corporation • Gulf Refining Company

1822 Gulf Building, Pittsburgh 30, Pa.

GULF

THE FINEST PETROLEUM PRODUCTS FOR ALL YOUR NEEDS

Cross section view showing machining details and bushings.

YOU FIND WHAT YOU WANT IN THIS BOBBIN

★ **LONGER LIFE**

★ **TRUE, FREE-RUNNING**

★ **BUILT-IN BRASS BUSHINGS**

★ **SKILLED WORKMANSHIP**

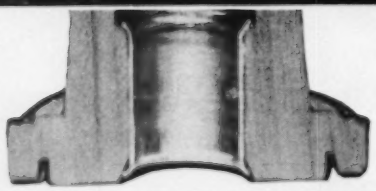
★ **COMPETITIVE PRICE**

It's not just one feature—but a combination of fine features—that makes VERMONT bobbins your best bobbin value. The uniquely crimped brass bushings prevent time loss, even at high speeds . . . so that there's no drag, no pull! Made of hard rock maple, the bobbins are kiln-dried and lacquered by a special process for even greater protection. Vermont spools and bobbins—with their superior features—guarantee you long, trouble-free usefulness.

Contact your nearest VERMONT SPOOL & BOBBIN representative. He can explain to you how easily and inexpensively you can have your specific needs filled to order . . . to your exact requirements.

Vermont SPOOL AND BOBBIN CO.

234 SO. CHAMPLAIN ST. – BURLINGTON, VERMONT — *SUPERIOR SPOOLS AND BOBBINS SINCE 1906*



Represented in the East by
Atkinson, Haserick & Co., Boston 6, Mass.
and Watson & Desmond, P. O. Box 1954, Charlotte, N. C.

STERLING TNA-5 *superior textile dyeing reagent... clear brilliant colors... softer finish...*

SIX-WAY VERSATILITY

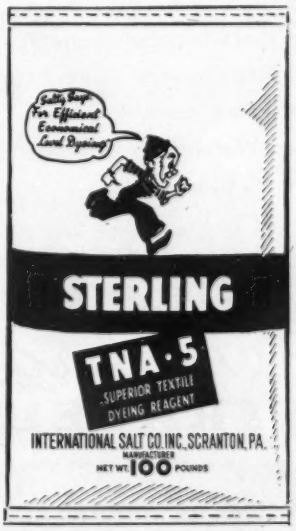
FITS YOUR NEEDS,

LOWERS YOUR COSTS

1 Efficient, economical replacement, pound for pound, for anhydrous sodium sulphate in a neutral dye bath. *2* Neutral, readily soluble in either cold or hot water. *3* Can be used in either the dry fine granular form or automatically converted to fully-saturated brine with the TNA-5 Dissolver. *4* Eliminates dye precipitation, produces a good color yield, level shades and a soft finish. *5* Can be used in a neutral dye bath when dyeing cotton, rayon, wool, or any blend of these fibers—in the staple, yarn or piece goods. *6* Especially effective with Direct or Naphthol dyes, it produces excellent crock fastness and clear, brilliant colors.

For Best Quality Dyeing, Order Your TNA-5 Today!

In 100-lb. bags and bulk



INDUSTRIAL DIVISION
INTERNATIONAL SALT COMPANY, INC.
Scranton, Pennsylvania

Sales Offices:
ATLANTA, GA.
CHICAGO, ILL.
NEW ORLEANS, LA.
BALTIMORE, MD.
BOSTON, MASS.
ST. LOUIS, MO.
NEWARK, N. J.
BUFFALO, N. Y.
NEW YORK, N. Y.
CINCINNATI, O.
CLEVELAND, O.
PHILADELPHIA, PA.
PITTSBURGH, PA.
RICHMOND, VA.

Engineering Offices:
ATLANTA, BUFFALO, CHICAGO

For further information use Handy Return Card, Page 229

There's a right traveler for every job!

When selecting travelers, you can usually get the very traveler you need by taking advantage of National's long, specialized experience. From our line of over 18,000 different sizes, weights, and styles, we can supply travelers promptly for most requirements and, when necessary, design special travelers for your particular needs. Our staff of engineers is at your service at all times and will gladly make recommendations to perfect your spinning and twisting.

National-Sterling Ring Travelers . . . precisely balanced, carefully tempered and smoothly finished . . . are designed for higher production of more uniform, high quality yarns. Ask us to recommend the *right* travelers that will boost the profits of your mill. National Ring Traveler Company and Sterling Division, 354 Pine Street, Pawtucket, R. I. Southern Office and Warehouse, 1215 East Fourth Street, Charlotte, N. C.

STANDARD IN U. S. A.

AMERICAN • HICKS • WILSON ELLIPTIC

WENTWORTH

DOUBLE DUTY OR P. B. • GRAVITY
GRAVITY EXPRESS • BAL-ELLIPSOID

NATIONAL Sterling RING TRAVELERS

F. L. CHASE, JR., PRES. AND TREAS. • R. V. BORDEN, PLANT MGR. • L. E. TAYLOR, SO. MGR.

NATIONAL RING TRAVELER CO., PAWT. R.I. U.S.A.

FOR SPINNING AND TWISTING ALL NATURAL AND SYNTHETIC FIBRES

FIBER-TO-METAL LUBRICITY

ANTI-STATIC CONTROL

FIBER-TO-FIBER COHESION

NOPCOSTAT* anti-static oils

Your present anti-static oil is doing only half its job if it does not give *"Balanced" Performance* — fiber-to-metal lubricity (coefficient of friction), fiber-to-fiber cohesion, anti-static control.

Every NOPCOSTAT anti-static oil gives you all these properties plus outstanding spreadability, freedom from yellowing and rancidity, and complete scouring out.

Give NOPCOSTATS a trial today. You'll find that years of Nopco research and experience in supplying anti-static products for the textile industry means *"Balanced" Performance* for you in processing your synthetics, woolens, worsteds, and blends.

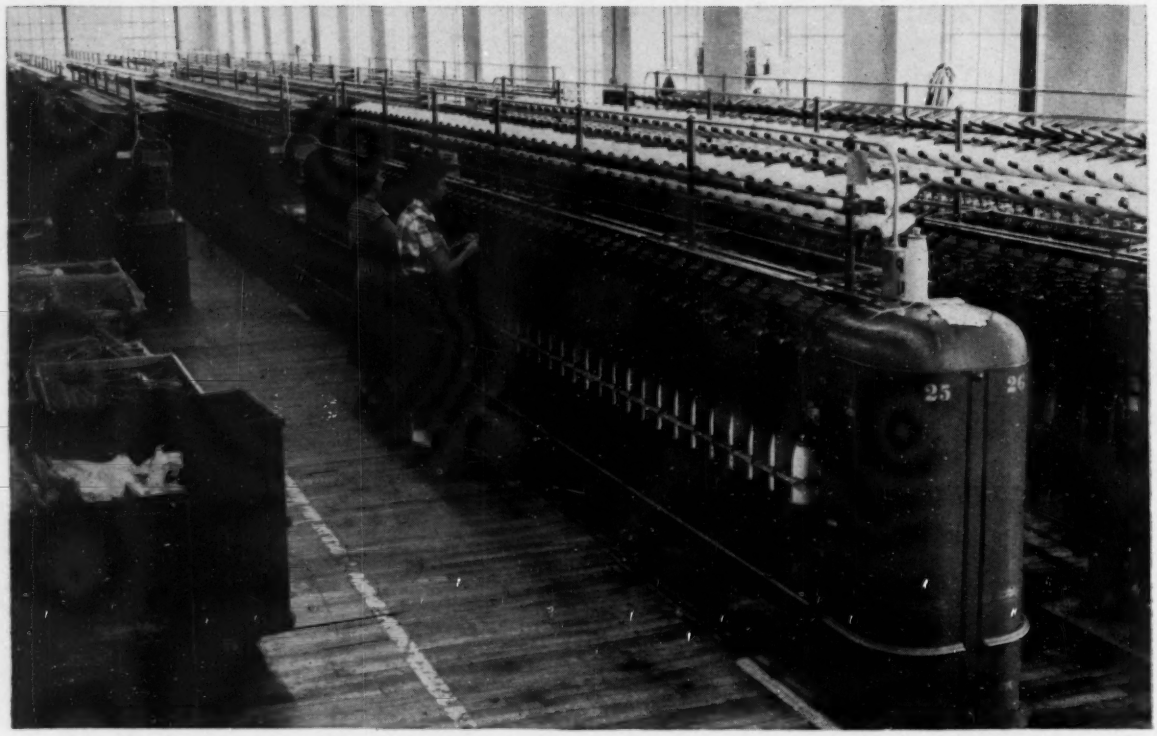
*Reg. U. S. Pat. Off.

BALANCED PERFORMANCE

NOPCO

CHEMICAL COMPANY Harrison, N. J.

Branches: Boston • Chicago • Cedartown, Ga. • Richmond, Calif.



A Quality-Boosting Installation. In the Thornton, R. I. mill of the Walter Marshall Spinning Corporation of Rhode Island, these Leesona Model 10 Ring Twisters have brought improved yarn quality and production efficiency. So much so that this mill is engaged in 100% replacement of twisting equipment with Model 10's.

Worsted Yarn Mill Boosts Quality

Walter Marshall Spinning Corporation tops its own high quality standards, realizes new economies with Leesona Model 10 Ring Twister

For improved Worsted Yarn Twisting, the Walter Marshall Spinning Corporation installed Leesona Model 10 Ring Twisters as part of a modernization program. The resulting benefits were immediate and outstanding. Here is what the management at the Walter Marshall Mill has to say:

"Primarily, we were interested in getting highest possible yarn quality when we replaced our obsolete equipment with Leesona Model 10 Ring Twisters. We got that top quality in full measure.

"Such features as automatic stop motion, free delivery, constant yarn speed delivered by accurate feed rolls and tensioning are real quality boosters. So is the endless belt drive, which produces even yarn on all spindles."

In your own operations

modernizing with Leesona twisting or winding machines is the logical way to make your machine replacement be a real time and money saver, while improving quality. For further facts on the Model 10 Ring Twister, or on any other Leesona machine, see your Universal representative.

23.4.9

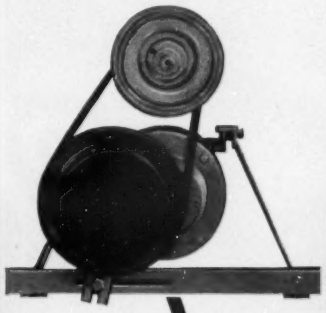
UNIVERSAL WINDING COMPANY

P. O. BOX 1605, PROVIDENCE 1, R. I.

Sales Offices: Boston • Philadelphia • Utica • Charlotte • Atlanta • Los Angeles

Winding and Twisting Machinery for Natural and Synthetic Yarns

The American Individual Card Drive features a centrifugal clutch which brings the card up to speed in 45 seconds—permits hand stripping while card is coming up to speed—eliminates necessity of jogging. American Card Drives require no special motors or starting mechanisms, no expensive belting. One V-belt does the work of flat-belting costing about 15 times as much!



Heart of the Card...a shaft-mounted drive as modern as the newest "miracle" fabric

The American Individual Card Drive removes one obstacle to card room efficiency—line shafting, thus permitting better card room layout, better lighting and ventilation, and ending falling lint or fly. It improves quality, permits greater flexibility of machine speed and allows you a 25% speed variation on each card for maximum production and peak quality of any fiber you process.

This American "packaged" drive is simply and compactly constructed, easy to install, and completely enclosed for safety. It mounts directly on the card cylinder shaft, requires no floor space, makes cleaning easier. American Card Drives prevent card-arch deflection and end the risk of shut-down from main drive failure.

If you're not already using American Individual Card Drives write for the complete story on their advantages or see your distributor. The American Pulley Company, 4232 Wissahickon Ave., Philadelphia 29, Pa.

At the Profit End of the Machine

Power Transmission by

AMERICAN

PULLEY COMPANY

TUFFER can give you
the Card Clothing Your Boss Carder Wants

Every boss carder knows exactly what he wants in the matter of card clothing . . . he knows, through long experience, that each piece must meet certain carding conditions. His card clothing must be made THE WAY HE WANTS IT! And that's where TUFFER comes in!

Howard Bros. engineers and research men are continually co-operating with key men—right in their own mills—in developing card clothing that meets the requirements of boss carders who know what they want.

This co-operation, backed by Howard Bros. 88 years of experience in making card clothing, is responsible for the proved production performance of today's TUFFER.

Let TUFFER prove itself to YOU ON YOUR CARDS!

B-1

Manufacturers of Card Clothing since 1866

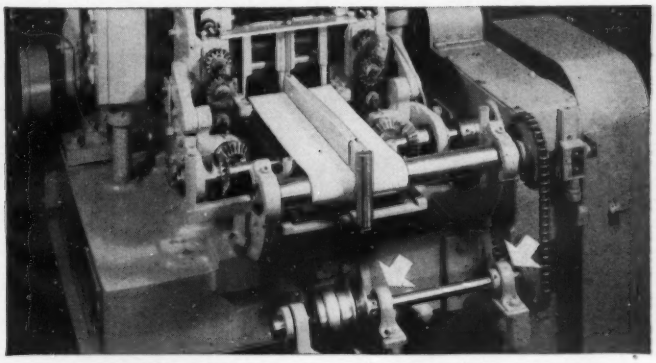
HOWARD BROS.

WORCESTER 8, MASSACHUSETTS

Southern Plants: Atlanta, Ga., and Gastonia, N. C.

Direct Representation in Canada

TUFFER PRODUCTS Card Clothing for Woolen, Worsted, Cotton, Asbestos and Silk Cards • Napper Clothing, Brush Clothing, Strickles, Emery Fillets, Top Flats Re-covered and extra sets loaned at all plants. Lickerins and Garnet Cylinders from 4 to 30 inches and Metallic Card Breasts Rewired at Southern Plants • Midgley Patented, and Howard's Special Hand Stripping Cards • Top Flat Chains



INFEED SECTION of Warner & Swasey Pin Drafter... using Fafnir PB type Pillow Blocks as indicated.

Here's a Pin Drafter Infeed Section with a fast change set-up

Partners in Progress

Warner & Swasey ...FAFNIR

Changing from apron to stationary infeed plate or vice versa in minimum time is one of many design advantages found in the new high speed, high production WARNER & SWASEY SINGLE HEAD, SINGLE OR DUAL DELIVERY PIN DRAFTER. It's the result of design simplification that embodies *the new Fafnir PB type ball bearing pillow block.* Two of these bearings are installed on the infeed shaft.

The Fafnir PB Type Pillow Block has a two-piece, pressed steel housing . . . a Fafnir wide inner ring type. precision bearing with eccentric cam design inner ring and collar for positive, simple locking action. Patented Plya-Seals retain factory-packed lubricant, exclude contaminants. Self-alignment of bearing in all directions during assembly saves time. Compact size saves space.

By collaborating with textile machinery designers for many years, Fafnir has accumulated a fund of knowledge and experience. These important assets are used in the process of developing new and better applications for ball bearings as well as in designing new products. Perhaps they can help you achieve product improvements. Write The Fafnir Bearing Company, New Britain, Conn.

FAFNIR PB TYPE Ball Bearing Pillow Block

FAFNIR
BALL BEARINGS
MOST COMPLETE LINE IN AMERICA

For further information use Handy Return Card, Page 229

"This solution satisfied the Safety Engineering Department..."

A leading carpet manufacturer in the Philadelphia area was faced with a serious problem – oil slick floors caused by lubricant leakage and throw-off. The Safety Engineering Department issued frequent warnings about dangerous conditions near the looms. Both conventional and special-purpose lubricants were tried but they either did not do a proper lubricating job or failed to stop the leakage.

When Sinclair Lubrication Engineer Harry Donovan was called in, he spent several days observing operating conditions. "Then," he reports, " I recommended Sinclair NO DRIP. I reasoned that Sinclair NO-DRIP was the right oil for this job because it is a high quality lubricant *especially fortified with Sinclair-developed additives to eliminate leakage and throw-off*. A trial period proved this recommendation entirely solved the problem. Soiled, slippery floors were eliminated and oil consumption was cut. What's more, Sinclair NO-DRIP Oils' superior lubricating qualities decidedly lengthened bearing life."

SINCLAIR LUBRICANTS

Why not let a Sinclair Lubrication Engineer help solve *your* lubrication problem? *There's no obligation.* Contact your local Sinclair office or write Sinclair Refining Company, 600 Fifth Avenue, New York 20, N.Y.

How Much Per Traveler-Pound?

The true test of a traveler is the number of pounds of top quality yarn which can be spun or twisted with it before it wears out. The more yarn produced, the lower your cost per traveler-pound.

Millmen who keep a sharp eye on production costs always judge travelers on this traveler-pound rating. And that's why so many choose Victor Travelers for spinning or twisting.

Victors consistently cost less per traveler-pound for two reasons. First, because there are no better travelers made, by any test of quality and uniformity. Second, because Victor Service Engineers, all mill-trained men, can quickly grasp your special problems, and come up with the right answer.

They can not only recommend the *right* traveler, but can often make other suggestions for improving your quality and production, —whether you are running conventional fibers, synthetics, or blends.

Plan now to talk to a Victor man about your costs per traveler-pound. Write, wire, or phone the nearest Victor office . . . for prompt service.

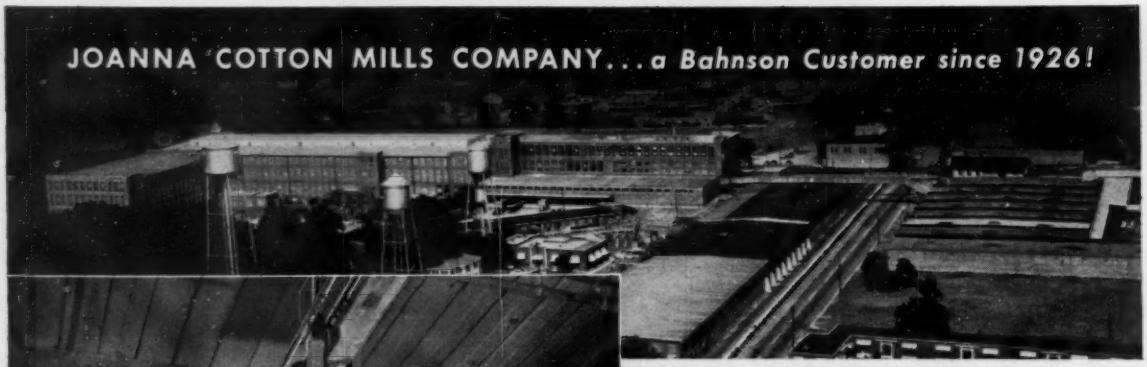
VICTOR Ring Travelers

VICTOR RING TRAVELER COMPANY

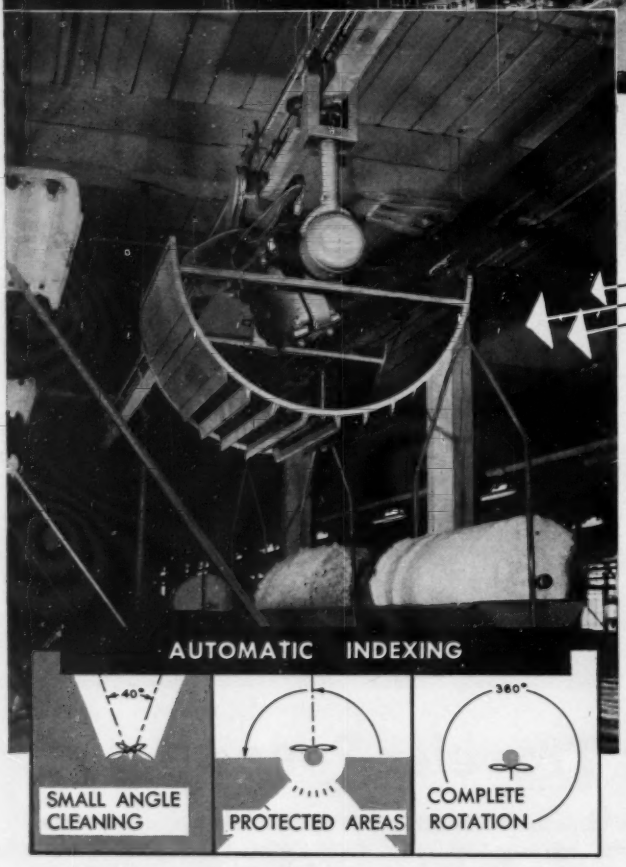
PROVIDENCE, R. I. . . . . 20 Mathewson St. . . . . Tel. Dexter 1-0737

GASTONIA, N. C. . . . . 914-916 East Franklin Ave. . . . . Tel. 5-0891

JOANNA COTTON MILLS COMPANY... *a Bahnson Customer since 1926!*



This prominent manufacturer, a user of many types of Bahnson equipment, reports greater cleaning efficiency and economy with Allred Traveling Cleaners.



ALLRED Traveling CLEANERS

Fully automatic cleaning eliminates blow-downs, improves product quality!

End costly shutdowns for manual cleaning! The new Allred Traveling Cleaner *completely* cleans walls, ceilings, monitors, sash openings, beams . . . all other lint-collecting surfaces in a pre-determined pattern.

Blowing perpendicular to its ceiling-suspended or column-mounted track, the Allred Cleaner completes a circuit at a pre-set angle, then *automatically* indexes to a different air flow direction for each succeeding circuit, the total cleaning arc variable from 40° to a full circle. This directed air blast of the Allred, with its 1/3 horsepower motor, has proved more effective than ceiling cleaners requiring up to 2 hp.

Adjustable U-Shield blades protect card webs or other critical areas from the air blast. This is particularly effective in cotton carding and intermediate areas, and in circular knitting, where it keeps stop motions thoroughly clean.

Get full details on the efficient, time- and money-saving Allred Cleaner, already proved in Joanna Cotton Mills and other leading plants. Or write for information on our complete line of automatic cleaning equipment.

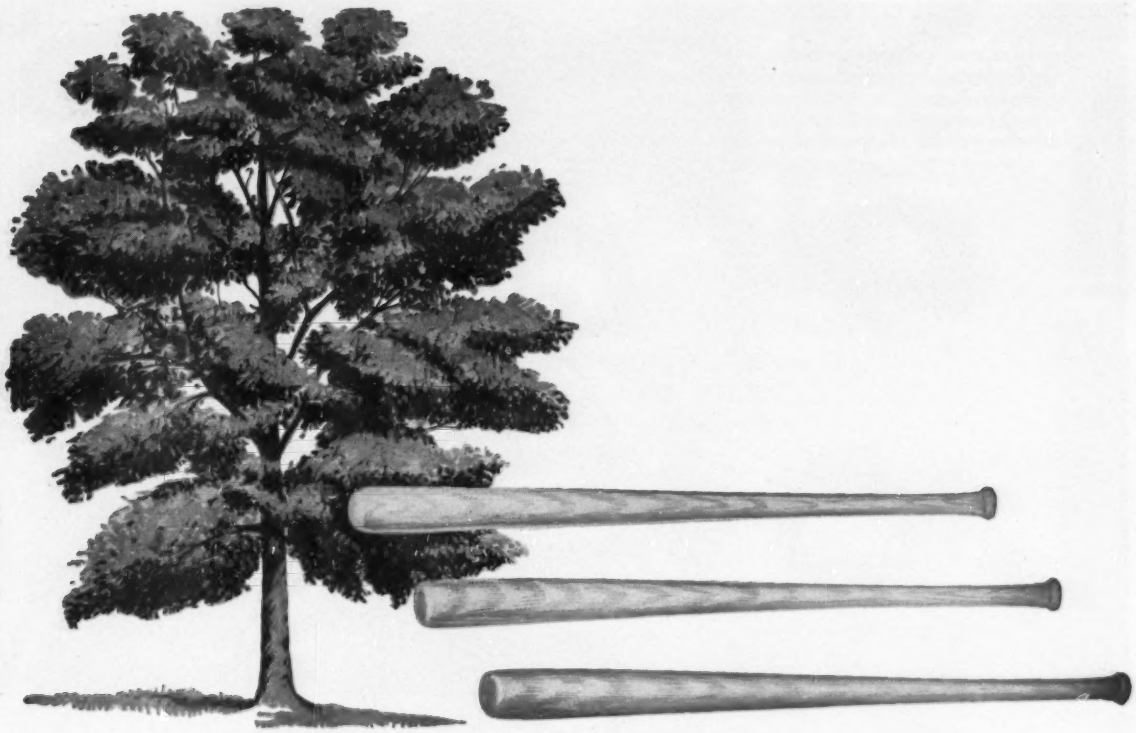
Weekly blow-down of ceilings and machinery in this Card Room have been completely eliminated by the Allred Cleaner, as shown by this unretouched photograph taken after several months of cleaner operation. The ceiling had not been blown-down manually since the Allred installation, and none is anticipated in the future. The cleaner rotates a full 360° to clean the cards, as well as the ceiling and walls. Part of the U-Shield blades are closed to protect the webs.

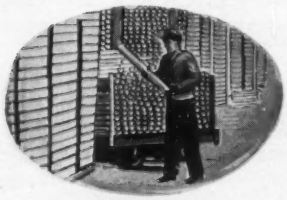
* **91 OF THE TOP 100**

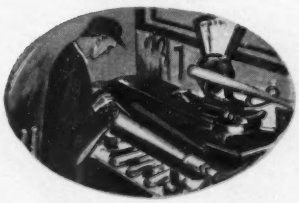
Of the 100 top textile manufacturing firms in the nation, 91 are users of Bahnson equipment . . . a record of preference that is high testimony to Bahnson engineering skill.

Bahnson COMPANY
WINSTON-SALEM, N. C.

AIR CONDITIONING • HUMIDIFICATION • CLEANING







Home runs start here

HOME RUNS START . . . *where?*

In the ball-park? More likely in the forest, for the finest bats need tough, straight-grained ash. Add time for aging. Skill in shaping. *Result:* a bat with a game-winning "finish."

In bleaching and dyeing operations also, fine finishes don't "just happen." They, too, take planning . . . take skill . . . take a de-sizing agent you can rely upon . . . take *Diastafor.*

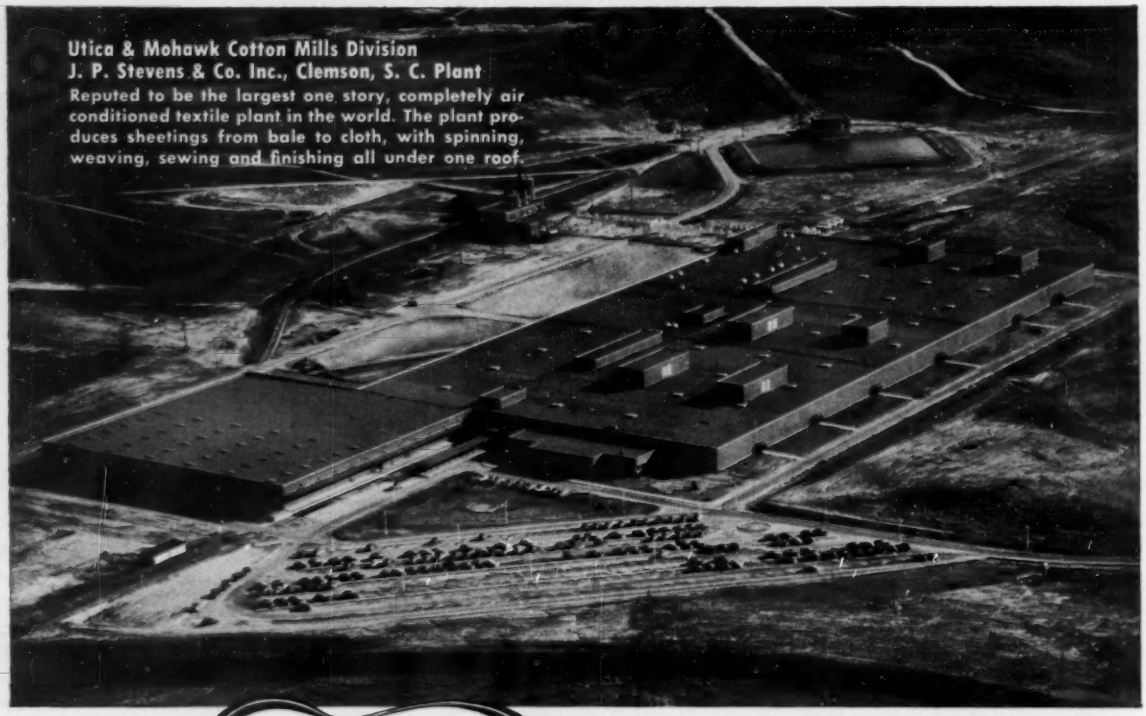
Diastafor de-sizing agent is worth cheering about. No matter what your working conditions—with various lots . . . with variations in water and sizing formulas . . . with cottons, rayons or mixed goods—you will find Diastafor a champion every time.

For Diastafor *works.* It works in an unusually wide range of temperatures and pH, a range sure to satisfy your every enzyme de-sizing requirement. It works in either the continuous or batch process. It works with ease, speed and economy. Remember: *it has worked as a winner for over 44 years!*

Diastafor is available in 3 types: L, L_2 and D. For further information about these, or for any other questions you may have, please write us. Standard Brands Incorporated, *Diastafor Department,* 595 Madison Avenue, New York 22, N. Y.

DIASTAFOR

A TRADE MARK OF STANDARD BRANDS INCORPORATED



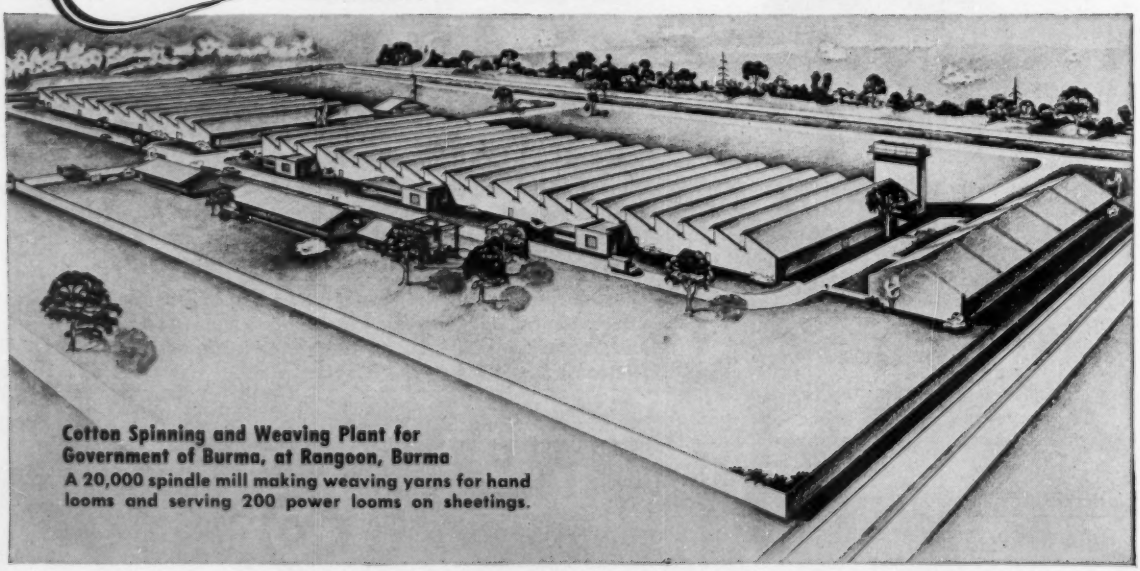
Utica & Mohawk Cotton Mills Division
J. P. Stevens & Co. Inc., Clemson, S. C. Plant
Reputed to be the largest one story, completely air conditioned textile plant in the world. The plant produces sheetings from bale to cloth, with spinning, weaving, sewing and finishing all under one roof.

LOCKWOOD GREENE
Projects
in
COTTON

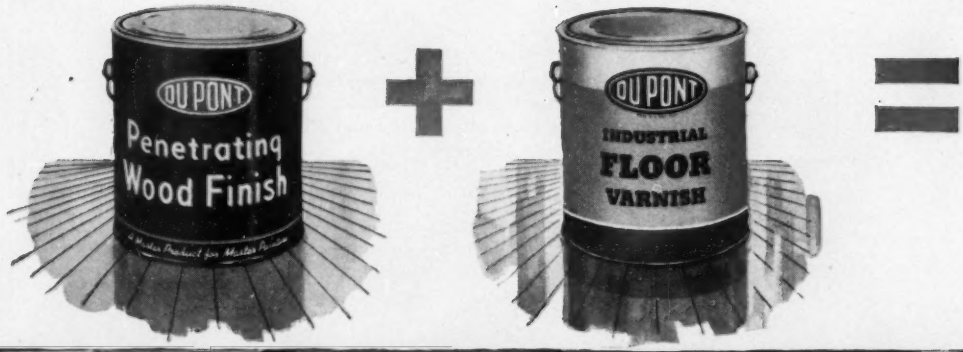
Lockwood Greene's work, originating in 1832, was the design of cotton mills. In the field of cotton textiles, Lockwood Greene has had over 2,400 engagements, and has designed projects totaling almost a half billion dollars in value.

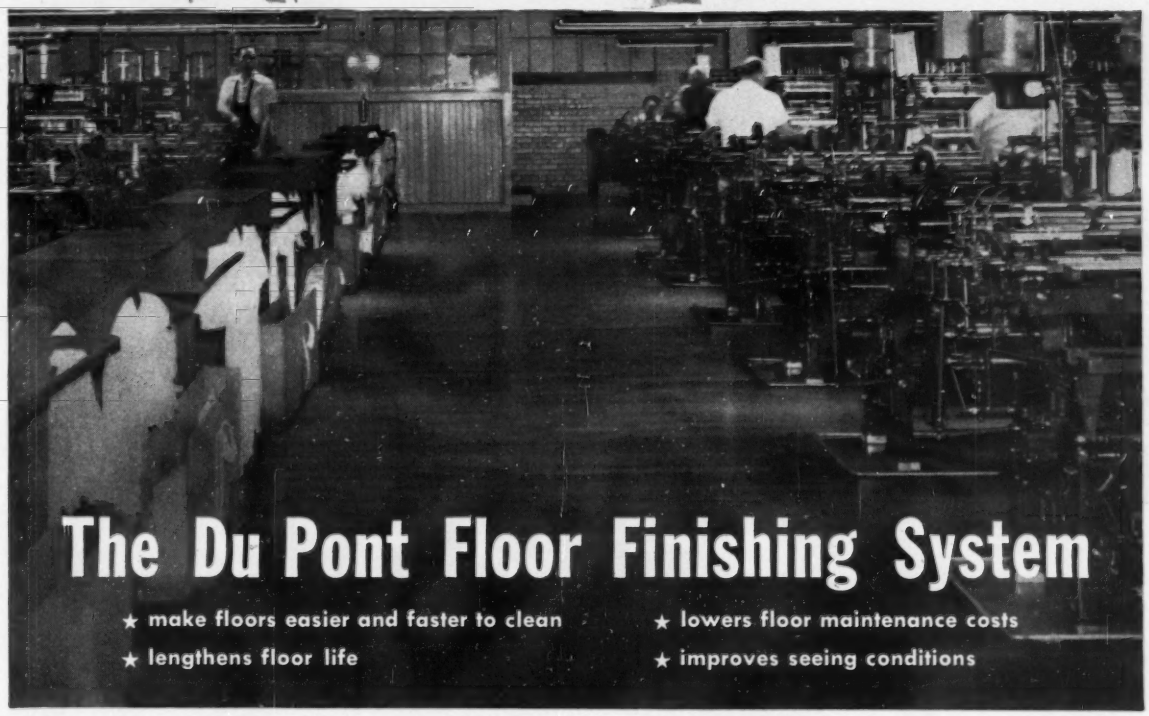
LOCKWOOD GREENE
ARCHITECTS-ENGINEERS

BOSTON 9, MASS.	NEW YORK 20, N. Y.	SPARTANBURG, S. C.
40 Central Street	10 Rockefeller Plaza	Montgomery Building



Cotton Spinning and Weaving Plant for Government of Burma, at Rangoon, Burma
A 20,000 spindle mill making weaving yarns for hand looms and serving 200 power looms on sheetings.





The Du Pont Floor Finishing System

★ make floors easier and faster to clean

★ lengthens floor life

★ lowers floor maintenance costs

★ improves seeing conditions

Mill and plant owners everywhere are enthusiastic about the many advantages offered by Du Pont's Industrial Floor Finishing System. Developed after years of research, this system consists of a first coat of Du Pont Penetrating Wood Finish that thoroughly seals the wood, and a finish coat of high-gloss Du Pont Industrial Floor Finish.

It's an unbeatable team of floor finishes that's bound to give your floors extra protection against hard wear and high humidity.

Practical experience in hundreds of plants has shown the value of the Du Pont Floor Finishing System in reducing over-all maintenance costs, and in providing better seeing conditions and improved housekeeping. To discover what the Du Pont Industrial Floor Finishing System can do for *your* floors, mail the coupon today.

DU PONT

REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

Industrial Finishes

Chemically engineered to do the job better

Send for Free Literature

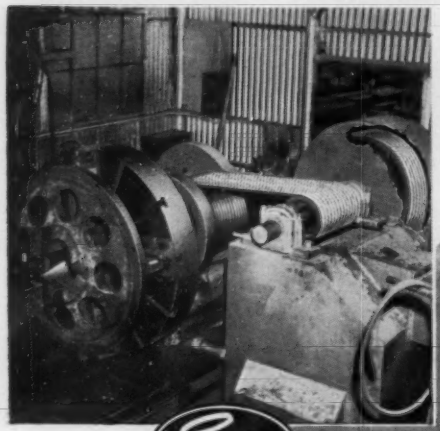
E. I. du Pont de Nemours & Co. (Inc.)
Finishes Division, Dept. T-54, Wilmington 98, Delaware

Gentlemen:
Please send me, without obligation, information on the Du Pont Industrial Floor Finishing System.

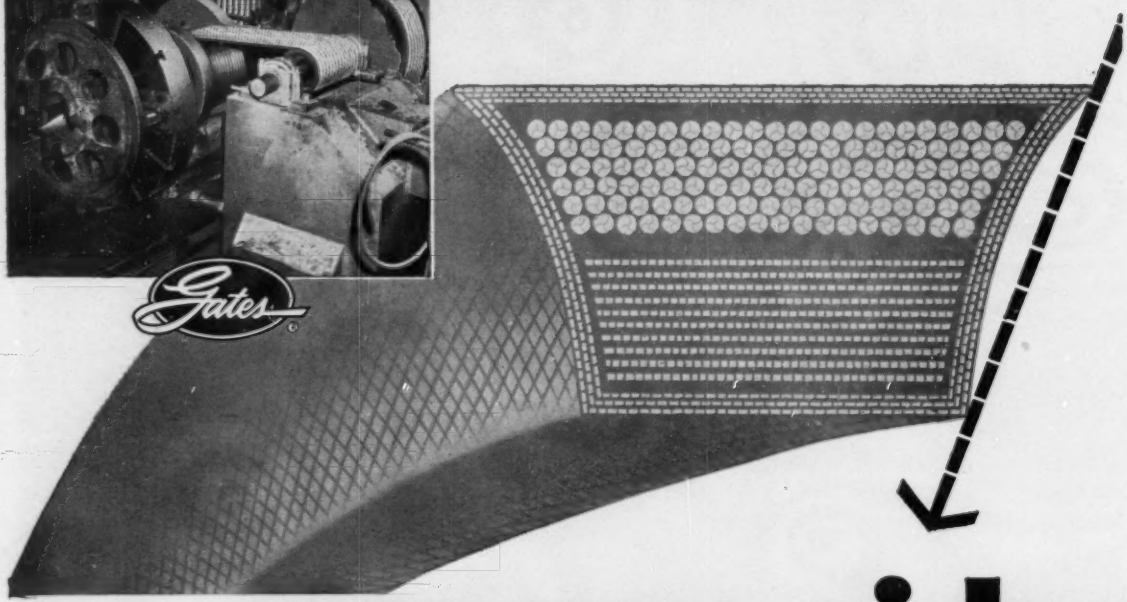
Name_____

Address_____

City_____ State_____



The smooth, positive flow of power transmitted through Gates Vulco Ropes enables this large engine lathe to handle quickly and efficiently many tough oil field repair jobs.



How concave sides cut V-belt costs!

Plants all over the world have made this discovery: Gates Vulco Ropes—the V-belts with *concave sides*—wear longer; cost less per year of service.

Here is the interesting reason why:

When the Gates Vulco Rope is bent around the sheave, the *precisely engineered* concave sides (Fig. 1) fill out and become straight (Fig. 1-A). Thus the belt makes full, uniform contact with the sides of the pulley. You get sure pulling power and *even distribution of wear.*

Longer wear saves not only on replacement costs; it also saves the cost of down-time... keeps equipment producing.

It's easy to prove to yourself the value of concave sides

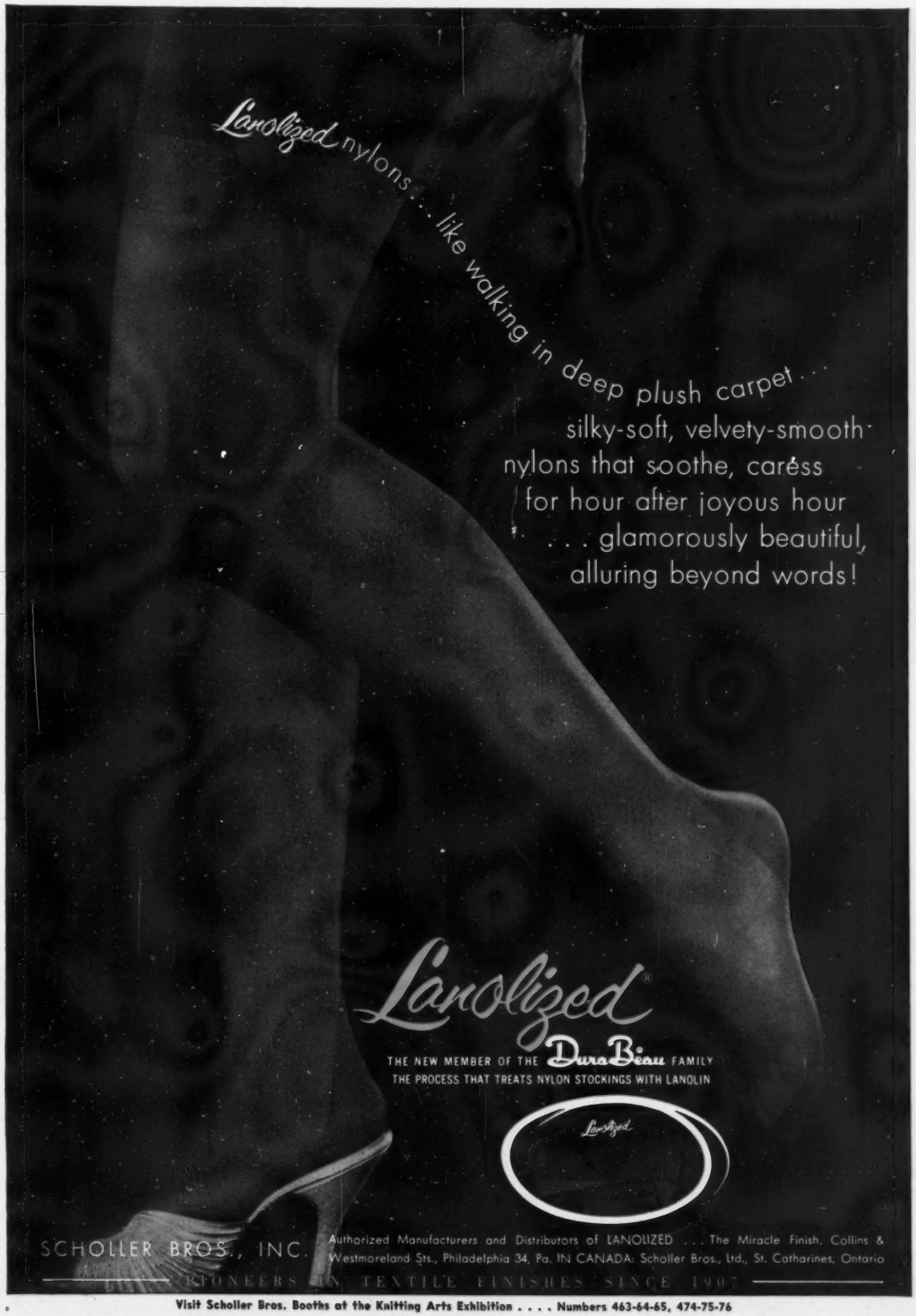
Simply bend a straight-sided belt (Fig. 2) and *feel* the bulge at the sides around the bend. You will quickly see why the bulging sides prevent an even fit in the pulley groove (Fig. 2-A). Uneven contact shortens belt life...increases belt costs.

Cut belt replacement time and costs...specify Gates Vulco Ropes—the V-Belt with *concave sides* (U.S. Pat. 1813698). The Gates Rubber Co., Denver, Colorado—*World's Largest Maker of V-Belts.*

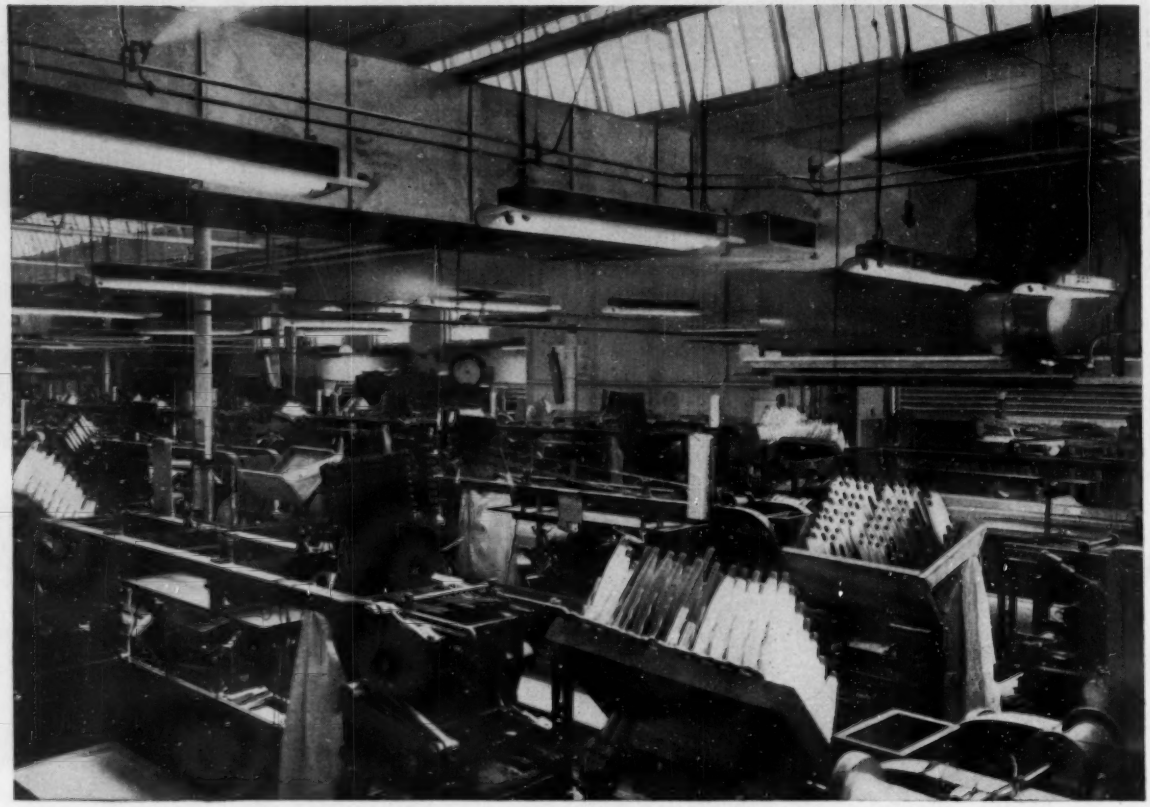
Gates Engineering Offices and Distributor Stocks are located in all industrial centers of the United States and Canada, and in 70 other countries throughout the world.

TPA-30-A-C

GATES VULCO ROPE DRIVES


Lanolized nylons . . . like walking in deep plush carpet . . .
silky-soft, velvety-smooth
nylons that soothe, caress
for hour after joyous hour
. . . glamorously beautiful,
alluring beyond words!
Lanolized®
THE NEW MEMBER OF THE DuroBeau FAMILY
THE PROCESS THAT TREATS NYLON STOCKINGS WITH LANOLIN
Lanolized
SCHOLLER BROS., INC.
Authorized Manufacturers and Distributors of LANOLIZED . . . The Miracle Finish. Collins & Westmoreland Sts., Philadelphia 34, Pa. IN CANADA: Scholler Bros., Ltd., St. Catharines, Ontario
PIONEERS IN TEXTILE FINISHES SINCE 1907

Visit Scholler Bros. Booths at the Knitting Arts Exhibition . . . . Numbers 463-64-65, 474-75-76



Unit Dry-Duct System installed at Rhode Island Fabrics Company, Pawtucket, Rhode Island

PROFIT'S IN THE AIR

. . . with AMCO Unit Dry-Duct Air Conditioning

In a textile mill, reliable, efficient air conditioning can be a big factor in the profit picture. When floor space is at a premium, a central station installation may be out of the question. Faced with this problem, many mills have found a profitable answer in the Amco Unit Dry-Duct System.

This system consists of a self-contained air conditioning unit, distribution ducts and room atomizers. The air conditioning unit itself is compact and can be installed overhead, out of the way, where it will not take up valuable mill floor space.

Automatically operated louvers supply fresh air and recirculated air, in proper proportions, to the air conditioning unit. The air is filtered if desired, and then heated as required. This "dry" air is distributed to the working area through ducts. Humidification and evaporative cooling are provided by atomizers located in front of each air duct. Automatic controls hold relative humidity and temperature at the desired levels. Spent air and heat are exhausted automatically through vent louvers.

The Unit Dry-Duct System is only one of the many types of air-conditioning systems manufactured, engineered, and installed by Amco. The facts about textile mill air conditioning — the advantages and disadvantages of each type of system — are fully covered in Amco's booklet "Air Conditioning for the Textile Industry." Write today for your own copy of this Amco booklet.

AMCO

AIR CONDITIONING SYSTEMS since 1888

AMERICAN MOISTENING COMPANY, PROVIDENCE, R. I. • ATLANTA • BOSTON • CAMDEN • CHARLOTTE • AFFILIATED WITH GRINNELL COMPANY, INC.

from Thermoplastic Fibers to

HIGH BULK and STRETCH YARNS at INCREASED SPEEDS

with HERR CONICAL RINGS and HERR FLYERS

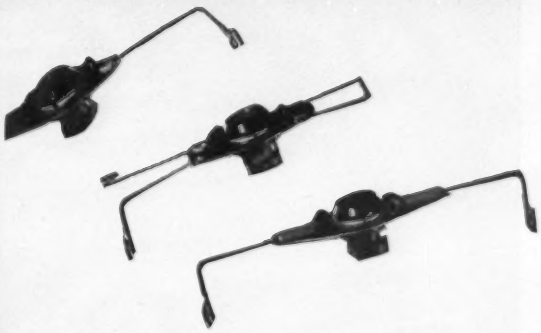
Research in yarn bulking processes is at a high pitch. New high bulk yarns are appearing at an unprecedented rate. Keeping abreast of this new science is our business. Textile engineers everywhere look to Herr for the fastest most practical methods of spinning and twisting these modern yarns.

Herr Flyers produce light tensions at high speeds — perfectly balanced for accurate yarn control and reduced vibration. Special Herr Flyers for installing twist and untwisting are available. Nylon bearings balance the action of the yarn and reduce bearing contact on the spindle for perfect control of twist and untwist.

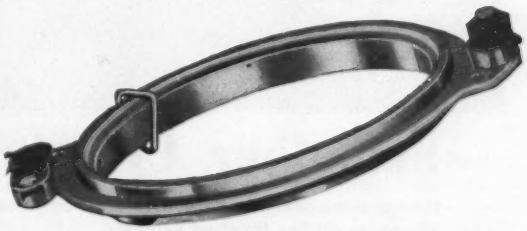
Herr Conical Rings are self lubricating with minimum oil consumption and long Traveler life. Controlled lubrication results in clean yarn especially valuable when handling the new bulk or stretch yarns.

Let Herr Engineers solve your Twisting and Spinning Problems. Let us show you how easy it is to get into this new and profitable production of high bulk yarns.

See us at the Knitting Arts Exhibition at Atlantic City — Booth Nos. 38-39.



HERR Lightweight Flyers



HERR Conical Rings

Ask for help on your problem.

Pease send us your literature.

NAME..... TITLE.....

COMPANY.....

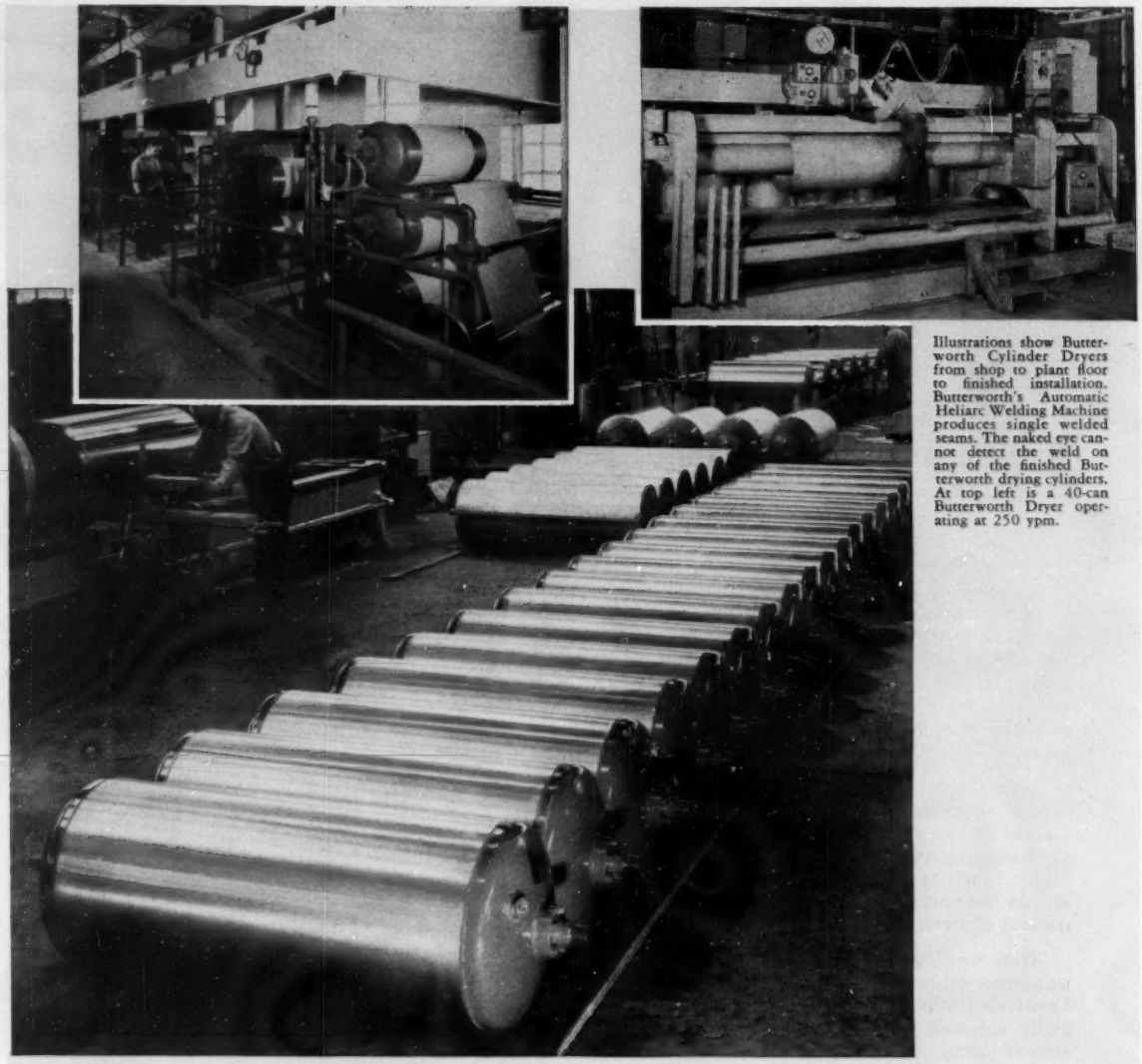
ADDRESS.....

CITY..... STATE.....

HERR MANUFACTURING CO., INC.

310 FRANKLIN STREET, BUFFALO 2, NEW YORK

FOR SPINNING AND TWISTING WORSTED, WOOLEN, RAYON, NYLON AND BLENDED YARNS OF ALL TYPES



Illustrations show Butterworth Cylinder Dryers from shop to plant floor to finished installation. Butterworth's Automatic Heliarc Welding Machine produces single welded seams. The naked eye cannot detect the weld on any of the finished Butterworth drying cylinders. At top left is a 40-can Butterworth Dryer operating at 250 ypm.

Smoother Cylinders . . . Better Dryers

Here's seam-welding so precise you can't see the seam on the finished cylinder.

A switch is snapped and a cylinder is welded in one slow, steady, precise movement. With this automatic welding machine, error hasn't got a chance.

It takes superior equipment to produce superior products — this is a manufacturing philosophy that Butterworth puts into practice. It's why Butterworth cylinders are smoother and stronger than ever before. And it's why Butterworth can give you fine machinery at a competitive price.

Butterworth drying equipment is engineered to meet your specific requirements, such as weight of cloth, width of cylinder, moisture content and dryness desired. You can specify coded or uncoded, copper or stainless steel cylinders; vertical or horizontal arrangement; fabricated or cast-iron columns; gear, sprocket-and-chain or V-belt drive. Whether your problem calls for cylinders, a complete machine — or a special finishing range that requires complete cooperation between machine-builder and your own engineering staff — talk to a Butterworth man. Write us today.

H. W. BUTTERWORTH & SONS CO.
Bethayres, Pennsylvania

1211 Johnston Building, Charlotte, N. C.
187 Westminster Street, Providence, R. I.

Representatives in Principal Cities of the World

Machines for Bleaching, Boiling-Out, Dyeing, Mercerizing, Finishing & Embossing
Pot Spinning Machines for Synthetic Fibers
Calender Rolls : : Tenter Chains

BUTTERWORTH

News in Brief

Textiles as a Sacrifice? Speaking before the House Ways and Means Committee, Charles P. Taft, brother of the late senator from Ohio, presented the opinion of the Committee for a National Trade Policy that it would be better for certain segments of the American textile industry to be put out of business by Japanese competition rather than lose Japan to the Communists. Said Mr. Taft, "If Japan goes over to the other side, or if Japan decides she has to play economic ball with both sides of the Iron Curtain in order to live, we will have lost an outpost more important than Formosa . . . Yet there are those who urge that this risk ought to be taken in order to preserve America's knit glove industry and the handkerchief lines in our textile mills. I do not think that [these] lines will disappear in the face of Japanese competition, but, even if they did disappear, the plain fact is it would be better to lose them than to lose Japan."

Atomic Textiles. American Machine & Foundry Co. has completed plans for the building of the first nuclear reactor to be owned and operated by private industry for research in industrial and humanitarian fields. A number of leading industrial firms, including some from the textile industry, have been invited to participate in the program on a cooperative basis. The first reactor will be built in the New York area, and will be ready by the summer of 1956. AMF has also been awarded a contract by Battelle Memorial Institute to construct a nuclear reactor at the Institute's atomic research center now being built near Columbus, Ohio. The reactor will be used in Battelle's research in various fields, including textiles.

"Hard Bargaining" Upheld. Reminding the National Labor Relations Board that the statutory duty to bargain does not require employers to agree to union proposals or to make concessions, the Court of Appeals for the Sixth Circuit has rejected a Board finding that an employer's firm stand

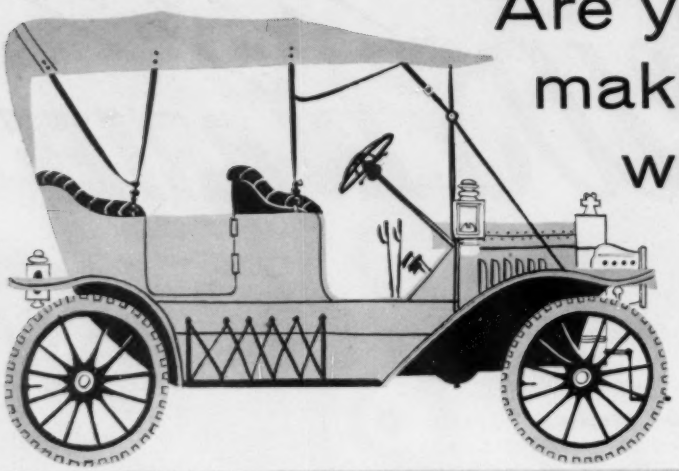
on his own proposals constituted a refusal to bargain. The Board had ruled that an employer refused to bargain in good faith because he rejected certain union demands and insisted on his own counterproposals during over a year's negotiations. — NAM Law Department.

Duck Still Best for Tents. A panel of tent and awning manufacturers discussing the industry's problems during the recent meeting of the New England Awning and Tent Manufacturers Association were in agreement that army duck is still the most satisfactory tenting material. They consider it superior to twills and drills, and feel that no synthetic substitute is in sight.

To Survey Hosiery Field. The National Association of Hosiery Manufacturers has authorized Richard Manville Associates to make simultaneous but independent surveys of the men's, infant's, and children's hosiery fields. The work will include surveys of manufacturing and selling practices, customer buying practices, and consumer habits in these fields.

Synthetics Labor In Vein. Replacement of damaged or diseased arteries with artificial tubes made of knitted or braided synthetic fibers has been independently announced by The Chemstrand Corp. and the School of Textiles at North Carolina State College. The Chemstrand Corp., working with surgeons from the Medical College of Alabama, has developed a braided nylon "artery" which has been used successfully to replace a damaged femoral artery in a patient faced with amputation of a leg. The N. C. State development is a knitted Orlon tube intended as a substitute for the aorta, the principal artery of the heart. It has not yet been used on humans, although successful transplants have been made on dogs.

Youth Misinformed About Business. A survey conducted for General Electric Co. by Opinion Research Corp. among 1,443 high school students in an industrial county produced some startling and and thought-provoking results. While almost all of the students who took the test which formed the basis of the survey are actual or potential supporters of the competitive system, a wide and uncritical acceptance of some muddled ideas was turned up. For example, about 54 per cent agreed that "the fairest economic system is one that takes from each according to his ability and gives to each according to his needs" [a basic tenet of Marxist dogma]. About 80 per cent believe that



Are you still making Brine with "Model T" methods?

Then Save Time and Money with

THE LIXATE PROCESS

In a single piece of equipment, The Lixate Process combines a method of dissolving rock salt without agitation and a method of filtration.

MAKES BRINE AUTOMATICALLY

The Lixator makes and filters all the brine you want or need with no human aid whatever and can be located *anywhere*—even hundreds of yards from buildings and points of use.

UNIFORM QUALITY AND STRENGTH

The Lixator produces *only* 100% fully-saturated brine, self-filtered, crystal clear. May be accurately reduced in strength, without testing, without delays.

PIPED TO POINTS OF USE

Turn a tap, there's your brine—*where* you want it, *when* you want it. No handling of salt or finished brine. Economy! Convenience! Efficiency! All Lixator installations are custom-engineered.

EVAPORATED SALT DISSOLVERS, TOO

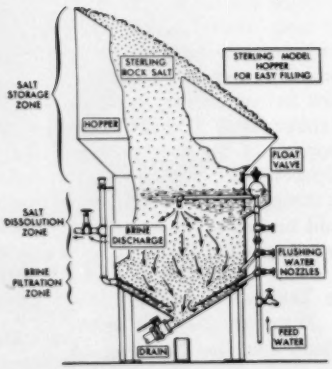
Rock Salt or Evaporated Salt—International provides both in all forms. It provides also any technical advice on salt, brine, or auxiliary equipment, required by users, for either kind of salt.

INTERNATIONAL SALT COMPANY, Inc.

Scranton, Pa.

SALES OFFICES: Atlanta, Ga. • Chicago, Ill. • New Orleans, La. • Baltimore, Md. • Boston, Mass. • Detroit, Mich. • St. Louis, Mo. • Newark, N. J. • Buffalo, N. Y. New York, N. Y. • Cincinnati, O. • Cleveland, O. • Philadelphia, Pa. • Pittsburgh, Pa. • Richmond, Va.

ENGINEERING OFFICES: Atlanta • Buffalo • Chicago



HOW LIXATOR WORKS

Rock Salt, fed by gravity, keeps tank filled. Water in dissolution zone dissolves salt, becomes 100% saturated brine. Lower bed of rock salt acts as filter. Result—crystal clear, fully saturated brine.

It costs nothing to find out what The Lixate Process can do in YOUR plant! SEND THIS COUPON NOW!

International Salt Co., Inc.
Industrial Division, Scranton 2, Pa.

Without obligation, please have an International Industrial Engineer call to show me how The Lixate Process might be adapted to my plant.

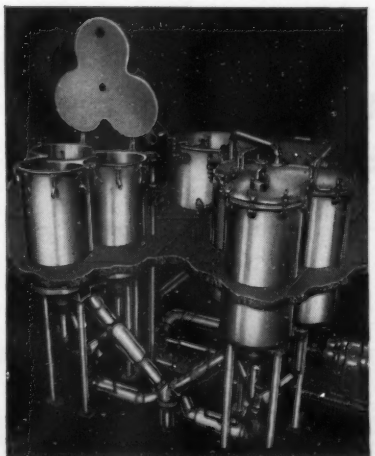
*Name*_____ *Title*_____

*Firm Name*_____

*Address*_____

*City*_____ *Zone*_____ *State*_____

...that's when this absolutely LEVEL DYEING "pays off"!



An exclusive method of cushioning the shock of flow reversal . . . plus our own pump design to obtain high flow at moderate pressure . . . reduce danger of "blown" beams.

Quality in denim, chambray, gingham and similar fabrics, depends greatly upon *uniform color*. This can be achieved only with *yarn* of uniform color . . . yarn without the slightest variation in shade. The Smith-Drum Beam and Package Dyeing Machine is designed to *insure absolutely level dyeing* of a complete set of beams or packages.

Level dyeing is possible *only* when all beams or packages in the same lot are dyed simultaneously in the *same bath!* This Smith-Drum Machine dyes from 2 to 6 beams or yarn carriers under identical conditions of liquor ratio, flow, pressure and temperature . . . with uniform distribution of additions to the dye bath.

If you are interested in truly uniform dyeing results, economy in operation and saving in floor space, it will pay you to discuss this machine with one of our representatives.

SMITH, DRUM & COMPANY

432 W. Allegheny Avenue, Philadelphia 33, Pa.

Southern Sales Representatives:

PARROTT & BALLENTINE

610 South Carolina National Bank Building

Greenville, South Carolina

ENGINEERED AND BUILT BY

PERKINS

EXPERIENCE
+QUALITY=
PERFORMANCE

B. F. PERKINS & SON, INC.

HOLYOKE · MASSACHUSETTS

SOUTHERN SALES OFFICE · 1609 LIBERTY LIFE BLDG · CHARLOTTE · NORTH CAROLINA

LARGEST MANUFACTURERS OF CALENDER ROLLS IN THE WORLD

owners get 40 to 80 cents of every dollar divided between owners and employees; only 14 per cent picked the correct answer—20 per cent. Other misconceptions held by a majority of the students: the best way to increase living standards is to get more of the company's money; increased use of machines results in fewer jobs; owners, not operatives, get most of the benefit of increased production; the best protection of jobs is something other than the employer's ability to meet competition. Conclusion: free enterprise needs to present its story more often and more forcefully to tomorrow's citizens. Otherwise it will lose the battle of ideas by default. The misconceptions these youngsters have didn't just grow there like Topsy; someone else is doing a better job. And that doesn't apply just to this one county — high school students across the nation do about the same on the quiz.

Dacron In—Nylon Out? Just as nylon replaced silk in quality fish lines because of its greater resistance to water, it now appears that Dacron will replace nylon, because of lower stretch. But nylon holds its own in sails for sports and other vessels, although Dacron and Orlon are also popular.

Low Bids With Imported Silk. Army contracts awarded to firms whose bids were based on foreign-produced spun silk yarn has caused considerable furor among U.S. silk spinners and weavers. The Army recently awarded contracts totaling 200,000 yards of powder bag cloth to European firms using yarns 20 per cent cheaper than domestic spun yarns, and which furthermore contain noils and waste from Red China, while American producers and importers are not allowed to import from Red China. — *National Federation of Textiles Bulletin*, quoting a Boston importer.

Elastic Swimwear Standards Available. A 24-page brochure giving the standards promulgated by the National Knitted Outerwear Association for woven elastic swim suits is available from the Asociation at 386 Fourth Ave., New York 16, N. Y.

Canadian Seminar for 1956. The Fifth Canadian Textile Seminar will be held during September, 1956, at Queen's University, Kingston, Ont. Exact dates will be announced later.

Union to Forego Wage Demands. According to Emil Rieve, president of the TWUA (CIO), the union will forego any demands for wage increases this year, because "the industry is and has been in its most serious depression in 20 years."

What Is a Bleached Fabric? The question of whether "boiled off" means "bleached" in Customs matters has been raised again. The Japanese exporters who have benefited by a fluke in the silk fabric tariff rates which make *bleached goods* dutiable at 25% and *grey* goods at 55% have been joined by an importer of French fabrics, who protested against paying a duty of 55% ad valorem on silk cloth which, in the boiling off process, he maintained, became also

Hoover Awarded NBP's Silver Quill

The Vice-President of the United States is shown in the photo above presenting the 1954 Silver Quill Award of National Business Publications, Inc.* — highest tribute of the business press — to Former President Herbert Hoover for most distinguished services to business and industry through the leadership he has provided the planning, programming, and progress of the Commission on Organization of the Executive Branch of Government.

Left to right are: Robert E. Harper, president of NBP; Mr. Nixon; Mr. Hoover; Harvey Conover, president of Conover-Mast Publications, Inc., and chairman of the board, NBP, who was master of ceremonies at the recent State of the Nation Dinner in Washington at which the award was presented.

Background information regarding the association's Silver Quill Award was provided by Mr. Conover who said:

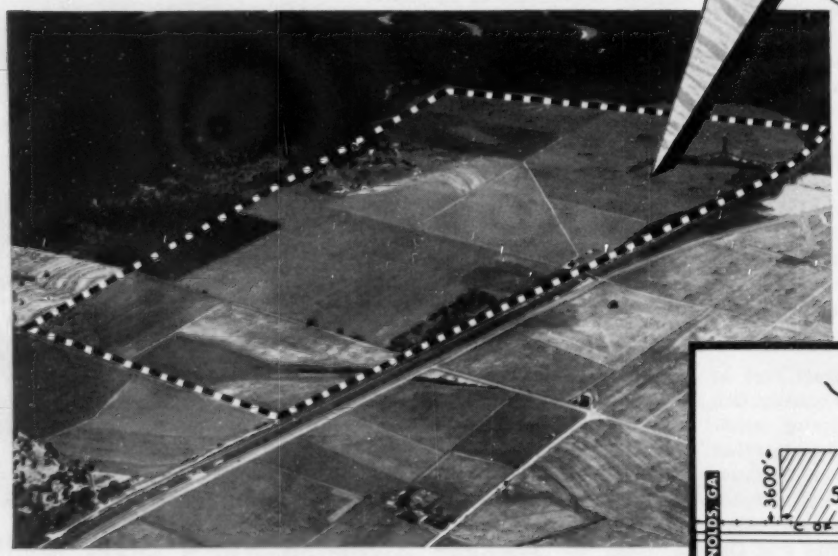
"Among our principles of practice . . . there is one that pledges active allegiance to the American economic system . . .

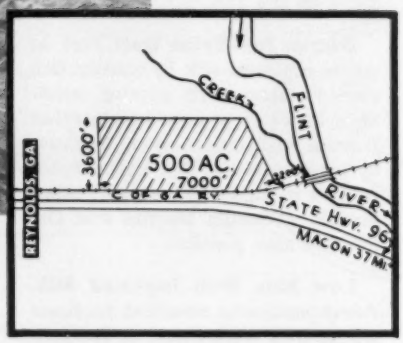
"Sound business decisions are essential to the continued prosperity of our enlightened economy. Business magazines are dedicated to the enduring service of providing the knowledge that is necessary to those sound decisions.

"That is why we seek each year to present our Silver Quill Award to that person who has best epitomized those things for which we stand and in which we serve. The Silver Quill of NBP, like the organization that awards it, is synonymous with consecrated service to business and industry and to the government that guarantees our freedom of enterprise."

*National Business Publications is an association of publishers of 171 technical, professional, industrial, scientific, merchandising, and marketing magazines. W. R. C. Smith Publishing Co., which publishes TEXTILES INDUSTRIES, is a member of this association.

WOOL PROCESSORS!...





Ideal for
SCOURING, COMBING, TOPPING OPERATION

- 500 acres of level terrain.
- Located one mile east of Reynolds, Ga., 37 miles from Macon.
- Flint River has minimum flow of 193,881,600 gallons per day at site.
- Ample underground water supply.
- Served by Central of Georgia Railway, connecting daily with 15 major railroads — fast, dependable transportation to all markets. Also connects daily with Port of Savannah for import and export operations.
- Fronting on State Hwy. 96, which connects with U. S. Hwys. 341 and 19.
- Population of 55,937 within 25-mile radius.

Get full details about this unusual choice site for your new wool processing plant. Information and maps are available from your Central of Georgia and Savannah and Atlanta Industrial Location Specialist. All inquiries handled in strict confidence. Today, call, write or wire the address listed at right.

WRITE FOR 32-page brochure showing these sites and others now available with exceptionally desirable features.

CENTRAL OF GEORGIA RAILWAY
INDUSTRIAL DEVELOPMENT
DEPARTMENT
Department F
501 Rhodes-Haverty Building, Atlanta 3, Ga.

The Right Way . . .

CENTRAL OF GEORGIA RAILWAY

bleached. The Second Division of the U.S. Customs Court ruled, as it had previously, that a boiled off fabric is sufficiently processed to come under the 25% rate. The government, however, is again seeking a reversal of this ruling through the U.S. Court of Customs Appeals. This situation grows out of the ridiculous (to the industry) wording of the 1947 trade agreement negotiations, in reference to when silk is "bleached, colored, dyed or printed." — *National Federation of Textiles Bulletin.*

World Cotton Statistics. According to figures just released by the International Cotton Federation, the number of cotton spindles in place in all countries increased by 197,000 during the year ending July 31, 1954. Cotton mill consumption during the same period showed a gain of 815,000 bales over the previous year. [See TEXTILE INDUSTRIES for October, 1954, p. 105, for previous report.]

WORLD COTTON SPINDLES AND COTTON MILL CONSUMPTION

	Spindles*	Mill Consumption**
Europe	71,614	12,317
North America	25,048	9,257
South America	5,229	1,828
Asia and Oceania	26,685	11,840
Africa	943	436
TOTALS	129,519	35,678

*In place, thousands, July 31, 1954.
**Thousands of bales, year ending July 31, 1954.

New German Acrylic Fiber. The West German firm of Farbenfabriken Bayer is now in commercial production of a fiber based on polyacrylonitrile. During experimental production the fiber was called "Bayer-Acryl," but has now been rechristened "Dralon."

New Mill Behind the Iron Curtain. A new spinning mill (fiber unspecified) is being rushed to completion in Miskolc, Hungary, according to the Hungarian News and Information Service. The mill is scheduled for completion in August, 1955, and will have 36,000 spindles. HNIS admits that this mill behind the Iron Curtain will be the last word in production efficiency and amenities provided for employees.

AATCC Convention Plans Announced. Program plans for the 1955 National Convention of the American Association of Textile Chemists and Colorists, to be held in Atlantic City, N. J., September 22-24, have been announced by the Association's Philadelphia Section, this year's host. Technical sessions are to be held Thursday afternoon and Friday and Saturday mornings, and "will emphasize mill problems of the dyer and finisher."

Light Reading on a Weighty Subject. The story of tariffs and international trade is presented in a light vein in a 60-page booklet, "Innocence Abroad, or World Trade in Ten Easy Lessons," just published by the American Tariff League, Inc. It relates the adventures of Willoughby Lowdermilk, an eager young executive, as he tries to sell his company's products at home and abroad. The booklet is highlighted by appropriate cartoon illustrations. It points up the problems caused by tariffs and other trade barriers, and presents the League's position favoring high tariffs on imports from cheap-labor countries of goods competitive with those made here, and against lowering tariffs and then subsidizing domestic industries which have been injured by the reduced rates. Single copies of the booklet are available free from the ATL at 19 West 44th St., New York 36, N. Y.

Materials Handling Equipment for Rent. The Market Forge Co. has announced a "rental-lease-own" plan through which mills may lease materials handling equipment for periods of 12 to 60 months. After the original lease period, the mill may continue the lease at a lower rate, buy the equipment for 5 per cent of the original purchase price, or return it for credit at its market value. [Similar plans are available for purchase of textile machinery from the Warner & Swasey Co. and Universal Winding Co.; see TEXTILE INDUSTRIES for May, 1954, p. 75. The equipment funding program offered by industrial financing companies was described in TEXTILE INDUSTRIES for September, 1954, pp. 127-9.] The Elwell-Parker Electric Co. has announced the availability of two leasing plans for its line of industrial trucks. The first is a straight leasing plan, with an option to renew or to buy; the second is a lease plan with an option to buy for one dollar. Either plan is available on three or five year terms.

News in Brief

SAM - ASME Conference for Management. "Retooling Management for Competition" is the theme of a time study and methods conference to be held at the Hotel Statler, New York, April 28-29, 1955, under the joint sponsorship of the Society for Advancement of Management and the American Society of Mechanical Engineers. Seventeen technical papers will be devoted to industrial engineering techniques, production management, and related topics.

Unruly Strikers Can Vote in NLRB Elections. In a case involving a hosiery mill, Court of Appeals for the District of Columbia has upheld an NLRB decision that strikers guilty of violence or other misconduct remain eligible to vote in an NLRB representation election unless the employer has discharged or replaced them. This is the first judicial interpretation of the LMRA provision that "employees on strike who are not entitled to reinstatement shall not be eligible to vote" in such elections.

Germany Tightens Imports of U.S. Knitting Machines. The import into West Germany of used "Cotton"-type knitting machines

LOTOL®

BACKS UP your carpet sales story!

Tufted carpeting is really catching on with value-conscious homemakers. One big reason is this carpet's all-important backing of rubber-plastic. It's your big value story!

Show your customers how rubber-plastic backing:

- **Permanently anchors the pile.**
- **Substantially improves hand and body.**
- **Maintains dimensional stability. (eliminating puckering and shrinking)**
- **Permits repeated washings without fear of breaking down the backing.**
- **Prevents raveling at seams and edges.**
- **Prolongs carpet life.**

This backing material, custom-compounded by Naugatuck under the trade name Lotol, adds greatly to the quality characteristics of the carpet... permits substantial savings in its manufacture... makes possible its popular price!

Naugatuck will gladly work with any carpet manufacturer to provide a Lotol compounded to meet its requirements and price.

NAUGATUCK CHEMICAL
Carpet Fabricating Accessories:

RUG-SEALZ®—Carpet seaming adhesive.
KWIK-GRIP® TAPE—Carpet seaming tape with metal grippers for face-up sealing.
RUG-SEALZ TAPE—Seaming tape ideal for rubber-backed cotton and synthetic-tape-yarn carpeting.
HEAT-SEALZ TAPE—For binding rugs and fabricating rubber cushions.
AUTOMATIC IRON with attachment for applying rug binding.

SOLD ONLY THROUGH DISTRIBUTORS
Write us for name of distributor in your area.

World's Largest Latex Producer and Compounder

Naugatuck Chemical

Division of United States Rubber Company
Naugatuck, Connecticut

BRANCHES: Akron • Boston • Charlotte • Chicago • Los Angeles • Memphis • New York • Philadelphia • IN CANADA: Naugatuck Chemicals, Elmira, Ontario
Rubber Chemicals • Synthetic Rubber • Plastics • Agricultural Chemicals • Reclaimed Rubber • Latices • Cable Address: Rubexport, N.Y.

from the United States is restricted by new regulations just put into effect. More than 400 such machines were imported during the past six months, and between 30 and 40 per cent of West German hosiery production is knitted on them. New Cotton-type machines remain on the list of items whose import is "liberalized."

T E A M Day at N. C. State. Representatives of textile machinery manufacturers and mill officials met at the School of Textiles, North Carolina State College, on February 15 for T E A M Day (Textile Education and Machinery Day), where machinery men were acquainted with the applications in textile education and research of the equipment they manufacture. Team effort of the machinery builders and textiles colleges in providing training and research to benefit the textile industry was emphasized.

F-FHMA Gives Up. The Full-Fashioned Hosiery Manufacturers of America, Inc., labor relations organization which represented management in disputes with the American Federation of Hosiery Workers (AFL), has been dissolved, according to an announcement by its former president, Eugene S. Springer. Reasons given for the dissolution were lack of financial support because so few knitters are left in Philadelphia, and that "overproduction in the hosiery industry has wrecked the price structure."

Paper from Synthetic Fibers. The first successful production of paper from synthetic fibers on a laboratory scale has been announced by the Du Pont Co. Fibers used were nylon, Dacron, and Orlon. The paper made from these fibers appears to retain the original properties of the fibers: resistance to chemical attack, low moisture absorption, and resistance to the action of molds, bacteria, and light. While these papers will cost more than wood pulp papers, at least initially, their properties will probably make them useful in such fields as heavy duty bags and in applications where extreme permanence is needed.

New Association for Extra-Long Staple Cotton. New association representing the growers of American extra-long staple cotton is the Supima Association of America, with headquarters in El Paso, Texas, and promotion offices in New York. The goal of the association is to build markets for the product which it represents. Mitchell Landers of Berino, N. M., is president.

Notes on Knitted Gloves. Imports of knitted gloves from Japan, Puerto Rico, and several European countries still present a threat to American manufacturers, according to reports in the trade. There appears to be little agreement with the philosophy of Charles P. Taft, spelled out in his testimony before a Congressional committee [reported elsewhere in this section], that America must choose between sacrificing the domestic glove industry and a Communist Japan. . . . Manufacturers expect that stretch filament yarns will be widely used this year in gloves.

NLRB Upholds Discharges for Slowdown. The NLRB recently ruled in the case of a California cotton cooperative that an employer may lawfully combat a slowdown by discharging part of the participants as an example to the rest. The fact that not all of the participants were discharged was held to be not discriminatory.

Synthetic Fibers from Blended Polymers. The Textile Research Institute has released further details of its work on the control of the properties of synthetic fibers through blending of the polymers from which they are made [see Textile Industries for January, 1954, pp. 121-3]. In one instance, a mixture of polyacrylonitrile and cellulose acetate may be spun from dimethyl formamide solution. The resulting fibers make a fabric with a soft, cottony hand, are easily dyed with acetate dyes, exhibit controlled moisture absorption, and have improved electrical conductivity.

Tobacco Shade Cloth Saves $200 Per Acre. Tobacco shade cloth treated by a method (using lead chromate—Eds.) developed at the Southern Regional Research Laboratory saved some Florida tobacco growers an estimated $200 per acre for each of the past three seasons, according to an article in a

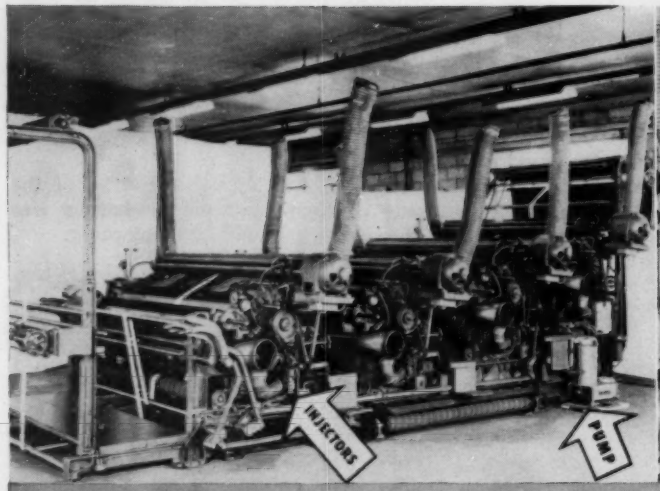
Denim Mill Executives, Listen to This!

Manufacturers of denims owe it to themselves and the school population of the country, to take definite action in promoting sales of denim dungarees for school wear, in pairs or sets of three, if they want to preserve this market, declared William H. Ruffin, president of Erwin Mills, Durham, N. C.

"We denim manufacturers, I believe, have been lax in failing to follow through in this matter. Dungarees arouse criticism, doubtless, because a single pair is worn long after its appearance indicates that it should have been discarded. Denim is that type of hard wearing fabric.

"We should promote urgently the desirability of buying them in pairs or in sets of three, so they could be properly cared for and fresh garments provided at frequent intervals. Were this done, I'm sure that the school authorities would promote rather than criticize their wear, for denim is truly a symbol of the way in which America's great prosperity has been won. It is the fabric of democracy, a badge of honor.

"There is very much to be said in favor of garments so universally worn by everyone in the schools no matter on which side of the tracks they live. They tend to break down social distinction."



Here's How A Georgia Woolen Mill*

SAVES 2 HOURS DOWN-TIME EACH DAY

ON A 4-BLADE SHEAR

by installing a

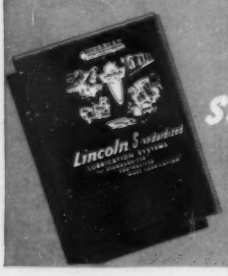
Lincoln Centralized

LUBRICATION SYSTEM

Hand lubricating this big shear was a two-hour job every day . . . during which time the machine stood idle. Even with this time consuming method many hard-to-reach bearings were overlooked, resulting in costly bearing failure and breakdowns. Grease dripping on the floor was a constant fire and accident hazard.

Now, with an automatically controlled Lincoln Centralized System, all 213 bearings are lubricated accurately and simultaneously every four hours. Downtime has been sharply reduced, bearing failures eliminated and power consumption cut.

Lincoln | **THE MOST TRUSTWORTHY NAME IN LUBRICATING EQUIPMENT**



SEND TODAY for your FREE copy of Catalog 80, showing the complete range of Lincoln Lubricating systems. Experienced Lincoln engineers will gladly work with you in planning the best System for your needs.

GET THE MOST FROM YOUR PRESENT EQUIPMENT...

with the added economy and efficiency of a Lincoln Controlled Lubricant Application System to apply...

THE RIGHT LUBRICANT IN THE RIGHT QUANTITY AT THE RIGHT TIME... automatically

*Name on request

LINCOLN ENGINEERING COMPANY • 5702-15 Natural Bridge Ave., St. Louis 20, Missouri

recent issue of *The Progressive Farmer*. The treated fabric lasts for three seasons, as compared to one season for the untreated fabric. During the current tobacco-growing season, 8-9 million square yards will be in use.

Course in Textile Testing. The U.S. Testing Co., Inc., will hold its annual summer course in Textiles and Testing Techniques during the first half of the summer session, Teachers College, Columbia University, July 5-22, 1955. The course will be taught at the company's main laboratories in Hoboken, N. J., and is accredited by Teachers College for 3 points toward a degree. Prospective students may obtain further information and application forms from Ruth Holmes Little, Director, Consumer Service Group, U. S. Testing Co., Inc., 1415 Park Ave., Hoboken, N. J.

Fifth Amendment Employee Can Be Fired. A decision by the Federal District Court for the District of Columbia re-affirms the right of an employer to discharge an employee who takes refuge behind the 5th Amendment before a Congressional committee investigating Communists. Such discharge is for "obvious cause" within the meaning of a collective bargaining agreement.

MERCHANDISING NOTES

Allied Stores Corp. has opened a buying office in Miami, said to be the first year-arcund buying office established in Florida by a department store organization.

Burlington Industries, Inc., has introduced a wash-and-wear, all-purpose work clothes fabric of 50 per cent Acrilan and 50 per cent combed cotton, called "Acri-Chino." The fabric is claimed to have excellent wrinkle recovery and crease retention.

Catalina, Inc., includes a 70-20-10 per cent lamb's wool, nylon, and mink blend in its 1955 men's sweater line.

Draper Brothers Co. will introduce to the consumer this spring a new type of super-soft fleece coating woven of 100 per cent Dynel. The fabric is called "Dynalure," and is composed of fine-denier, mechanically crimped Dynel fiber.

Glen Raven Mills, Inc., is now offering fitted tricot acetate-nylon sheets in white and in colors. The sheets are called "Nyrocale."

International Association of Clothing Designers have raised a fund of $75,000 to be turned over to a national association in the field to conduct a promotional campaign for men's wear.

Joanna Western Mills Co. has introduced a line of matching window shades and draperies. On the outside the shades look like the usual cloth window shade, but on the room side have a woven textured surface for which matching drapery fabrics are available.

Hosiery and Knitwear Export Group will maintain a fully staffed information bureau for the use of overseas buyers attending the British Industries Fair, to be held in London May 2-13. A number of English manufacturers will have displays at the Fair. Aristoc Ltd. will show a line of 30-denier

nylon stockings of yarn twisted to 30 tpi. Threads of S- and Z-twist are alternated in the stocking, which is claimed to give better wear and improved fit. Crestmont Ltd. will have on view its 9-denier, 66-gauge nylon hosiery. Despite the fineness of these stockings, the mill markets them with a guarantee of wearability and washability.

Textile Distributors Institute, Inc., has formed an advisory committee on standards and procedures for a fabric certification program which is charged with the development of a practical code of optimum end-use requirements for fabrics in the four major categories of blouses and underwear, men's wear, shirting, and women's wear.

E. W. Twitchell, Inc., manufacturers of "Textilene Sunsure" automobile seat cover fabrics, are giving a warranty with seat covers made of their 1955 line. If the fabric in the covers wears out at any time within 15 months under conditions of normal fabric use, the purchaser receives a replacement without charge.

Schwarzenbach Huber Co. import-export manager Ivan Bollinger reports a decided trend toward more and more luxurious fabrics in Europe, on his return from a visit to Schwarzenbach's mills in Italy, Switzerland, and France. Imports for the fall season include "Nylondina," which has an upper layer of nylon on a black or white ground, giving an irridiscent effect.

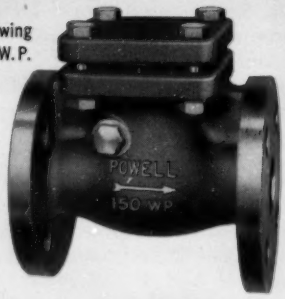
Pacific Mills' merchandise supervisor M. Gordon Gay recently told a meeting of buyers of linens and domestics that the biggest opportunity facing the sheet business today is to persuade housewives to retire sheets from active duty be-

fore they are actually worn out. "Once housewives realize that there is such a thing as being 'fashion right' in their bed sheets just as there is in other aspects of decor in their bedrooms, turnover in domestics departments can be expected to expand," according to Mr. Gay.

POWELL VALVES . . . THE COMPLETE QUALITY LINE . . . POWELL VALVES

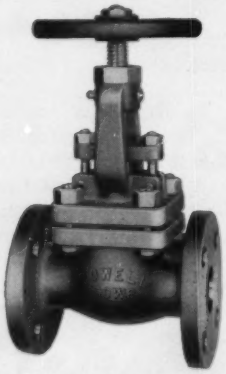
. . . THE COMPLETE QUALITY LINE . . . POWELL VALVES . . . THE COMPLETE QUALITY LINE . . .

FIG. 2342—Flanged End Bolted Cap Swing Check Valve for 150 Pounds W.P.



POWELL CORROSION RESISTANT VALVES

FIG. 2495—Double Disc Flanged End O.S.& Y. Gate Valve for 150 Pounds W.P.



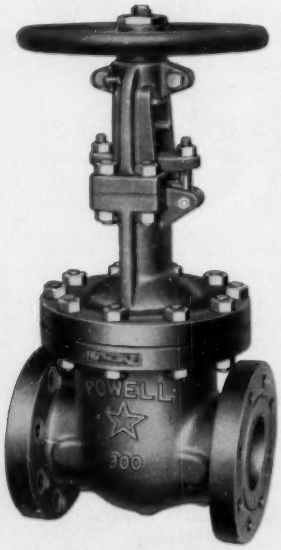


FIG. 2475—Stainless Steel O.S.& Y. Globe Valve for 150 Pounds W.P.

FIG. 3003SS—High Pressure Service Alloy Steel Gate Valve for 300 Pounds W.S.P.

POWELL VALVES . . . THE COMPLETE QUALITY LINE . . . POWELL VALVES

Powell can supply exactly the corrosion resistant valves you need . . . in a WIDE VARIETY of metal and alloys and all designs. You can be certain that every Powell Valve will give you dependable flow control.

Shown above are a few Powell Corrosion Resistant Valves. Investigate these . . . and the *complete* Powell line of quality valves that have a proven record of long, dependable service.

If no distributor is near you, we'll be pleased to tell you about our complete line, and help solve any flow control problem you may have. Write . . .

The Wm. Powell Company, Cincinnati 22, Ohio . . . . . 109th year

AN EXECUTIVE Views

THE NEWS IN TEXTILES

Prepared by a man who is closely identified with the textile industry.

Worry, Worry, Worry!

A COUPLE of months ago in this column, we commented upon the fact that the textile industry was likely to have plenty to worry about during the current congressional session. As a case in point, we mentioned the drive for an increase in the minimum wage under the Fair Labor Standards Act. As you will recall, the current minimum is 75¢ an hour and all indications point to an increase in this figure.

Perhaps by the time this appears in print the die will have been cast, but in the event final action has not been taken a precautionary word or two might be in order.

The unions have been driving for $1.25 an hour, and President Eisenhower came out with a statement that 90¢ seemed to him to be a fair figure. Thus it follows that somewhere in between 90¢ and $1.25 we are going to find the peg where the congressmen and senators are going to hang their hats.

Some months ago, we expressed the opinion that it looked like $1.00 to us. As time wore on and as the administration's viewpoint seemed to crystallize, we retracted our earlier guess and came forth with a 90¢ prognostication.

$1.00 Minimum?

Once again, however, we find it necessary to take a couple of steps backwards and examine the situation with a jaundiced scrutiny. Since the early weeks of the current congressional session, we have been convinced in our own mind that congress would not go above 90¢, but as we are writing this we see a few small clouds in an otherwise clear sky which make us wonder which senators are going to be interested in trying to keep the figure at this particular point.

It is certainly no secret that the House Labor Committee this year is packed to the hilt with some very staunch believers in everything in which you do *not* believe. The Democratic majority is seventeen to thirteen, the Committee having been "packed" this year by the Democratic leadership, and some of those with whom it has been "packed" are not expected to vote the conservative (to say the least) ticket.

For that reason, among others, it seems likely that whatever trust is going to be placed in Washington is going to have to be placed in the United States Senate, and we are doubtful that any considerable numbers in that body will be willing to talk against this particular wage issue.

To sum it up, if we were going to bet on the amount of the new Fair Labor Standards minimum we would still be inclined to go along with 90¢. However, we are not quite as firm in this belief as we were a few weeks ago, and can certainly see the possibility of this figure going as high as $1.00. From the standpoint of timing, we would guess that the wage issue would be concluded in congress by late May or early June, with the new figure to become effective perhaps in August or September.

Russian Textiles

Like everyone who works for the textile industry, we have been pretty much agitated about the tariff situation. Readers of this column (if any) do not need to be told this, because for the last several months we have been commenting on it and trying to picture the situation as we saw it from this corner.

Frankly, we occasionally get tired of the whole subject and would much prefer to read the latest cartoons in the *New Yorker* or even in *Esquire*. This is not because we are not worried about the tariff situation, but rather because we *are* worried about it.

The other night when, like Poe's raven, we were pondering weak and weary over the whole tangled mess of foreign relations and foreign trade, and it occurred to us that perhaps there had not been enough public airing of the textile industry's position in the defense of America.

We hope that every American who can read is familiar with the fact that in World War II the textile industry was cited by the Quartermaster-General as being second only to steel in the defense of the country. We hope there is also some general knowledge of the fact that the military forces used some eleven thousand articles from the textile mills and that well over half of the industry was devoted to war work.

From reading some of the arguments of the free traders, however, you would think that we are living in a sort of Alice-in-Wonderland environment which is far distant from wars and rumors of wars. One of the basic tenets which this group preaches is that each country should produce those things which it can make the cheapest and then all countries should trade with each other.

There is certainly not much

do metal impurities make TROUBLE for you?

KALEX works like magic!!!!!

★ in vat, chrome, and naphthol dyeing!

★ for producing more brilliant shades!

★ in Kier boiling!

★ in peroxide bleaching operation!

★ in mercerizing!

★ for removing iron stains!

★ and in many other processes where trouble exists!

The KALEX products are organic sequestering agents, or water-soluble ion exchangers. They have the property of binding and deionizing heavy metal and alkali earth ions, without removing them from solution.

"Get to the HART of the trouble... get KALEX!"

Save yourself time, worry, and money! Write, wire, or phone *now* for a sample. Proof is in *performance*. Top technical service and prompt delivery are assured.

HART PRODUCTS CORPORATION

1440 BROADWAY · NEW YORK 18, N. Y.

Works and Laboratories: Jersey City, N. J. Hart Products Company of Canada, Ltd., Guelph, Ontario

HART PRODUCTS — BASED ON RESEARCH

REQUIRED READING FOR COST-CONSCIOUS TEXTILE MEN!

doubt in the minds of anyone who is informed about the textile industry that the United States would not be one of these "cheapest" nations. It would be Japan, India or Russia.

It may sound cynical, but we are forced to hazard the opinion that for our part we are not willing to put the future security of the United States in the hands of either the Indian textile industry, or the Japanese textile industry or the Russian textile industry.

We have not the least doubt that the average individual in all three of these countries is just as decent, just as honest, and just as peace-loving as the American man-in-the-street, but when all the cards are laid down on the table, they are not going to be the ones to defend America. The people who are going to defend America are the same ones who have been doing it for the past three or four hundred years — the same people who generation after generation have valued freedom of thought more than they valued their own lives.

We know it is an impractical and an impossible idea, but we would certainly like to see a rising vote of all those who are willing to put the textile industry — a basic industry for the defense of this democracy — in the hands of the Indians, the Japanese or the Russians. Whether the free traders realize it or not, our tariff policy is pushing us headlong in just this direction.

We think and hope that the time will come when war will be outlawed through some type of international understanding, but we wonder if that time has yet arrived. Remembering Hiroshima and Korea and Formosa, we find ourselves leaning a little more toward the belief that the only national security this country is going to have in our lifetimes will be brought about because America is economically and militarily strong.

Indian Cotton

Somebody made the claim the other day that we need not worry too much about the Japanese textile industry, because even though they may have the most modern machinery in the world, they will not be able to obtain sufficient cotton to take over any sizeable portion of our markets. This is fallacious thinking because the United States government owns millions

(Continued on page 107)

APRIL

April 13-15—50th anniversary meeting, Alabama Cotton Manufacturers Association, Hotel Buena Vista, Biloxi, Miss.

April 14-16—Annual convention Phi Psi Textile Fraternity, Baconsfield Hotel, Brookline, Mass.

April 15—Meeting, Hudson-Mohawk Section AATCC, Jack's Restaurant, Albany, N. Y.

April 15—Meeting Philadelphia Section AATCC, Kugler's Restaurant, Philadelphia, Pa.

April 16—Meeting, Midwest Section AATCC, Netherlands Plaza, Cincinnati, Ohio.

April 19-20—37th annual meeting, National Knitted Outerwear Association, Hotel Waldorf-Astoria, New York, N. Y.

April 22—Meeting, Niagara Frontier Section AATCC, Buffalo, N. Y.

April 22—Meeting New York Section AATCC, Kohler's Swiss Chalet, Rochelle Park, N. J.

April 23—Spring meeting, Textile Operating Executives of Georgia, Georgia Institute of Technology, Atlanta, Ga. Carding and spinning.

April 23—Meeting Southeastern Section AATCC, American Legion Club, Lindale, Ga.

April 25—Annual meeting, Underwear Institute, Haddon Hall, Atlantic City, N. J.

April 25—Annual meeting, National Association of Hosiery Manufacturers, Claridge Hotel, Atlantic City, N. J.

April 25-26—Hosiery Industry Conference, Claridge Hotel, Atlantic City, N. J.

April 25-29—Knitting Arts Exhibition, sponsored by N.A.H.M., N. K. O. A., and Underwear Institute, Atlantic City (N. J.) Auditorium.

April 27-29—55th anniversary convention, Cotton Manufacturers Association of Georgia, Boca Raton Hotel & Club, Boca Raton, Fla.

April 28-29—10th Time Study and Methods Conference, sponsored by the Society for Advancement of Management, Hotel Statler, New York City.

April 29-30—31st annual convention Delta Kappa Phi Fraternity of America Inc., Lowell, Mass. Host, Beta Chapter of Lowell Technological Institute.

April 30—Meeting Piedmont Section AATCC, Robert E. Lee Hotel, Winston-Salem, N. C.

MAY

May 4-5—Spring meeting, The Fiber Society, Alabama Polytechnic Institute, School of Textile Technology, Auburn, Ala.

May 12-14—Annual outing Carolina Yarn Association.

May 13—Meeting Western New England Section AATCC, Rapp's Restaurant, Shelton, Conn.

May 14—Meeting South Central Section AATCC, Hotel Patten, Chattanooga, Tenn.

May 16-20—Materials Handling Exposition, International Amphitheatre, Chicago, Ill.

May 17-20—40th annual conference, Textile Institute, London, England.

May 20—Meeting, Washington Section AATCC, Washington, D. C.

JUNE

June 16-18—Annual convention, Southern Textile Association, Mayview Manor, Blowing Rock, N. C.

June 25-July 10—International Textile Exhibition, Brussels, Belgium.

June 26-July 1—Annual meeting, American Society for Testing Materials, Chalfonte-Haddon Hall, Atlantic City, N. J.

June 27-29—International Congress of Scientific Research Applied to the Textile Industry, Brussels, Belgium.

SEPTEMBER

Sept. 8-9—Fall meeting, The Fiber Society, Massachusetts Institute of Technology, Cambridge, Mass.

Sept. 20-21—The Chemical Finishing Conference sponsored by the National Cotton Council of America, Chalfonte-Haddon Hall, Atlantic City, N. J.

Sept. 22-25—National convention, AATCC, Chalfonte-Haddon Hall, Atlantic City, N. J.

Sept. 29-30—101st annual meeting of National Association of Cotton Manufacturers and 3rd annual meeting of Northern Textile Association, Wentworth-by-the-Sea, Portsmouth, N. H.

OCTOBER

Oct. 13-14—49th annual meeting North Carolina Textile Manufacturers Association, Carolina Hotel, Pinehurst, N. C.

Oct. 17-19—Fall meeting, National Council for Textile Education, The Larches, Hopedale, Mass. Hosts: American Textile Machinery Association.

Oct. 27-28—Annual convention, The Quartermaster Association, Conrad Hilton Hotel Chicago, Ill.

A print of this illustration in black and white suitable for line reproduction for use in your advertising, available free on request.

A FACT: The market for full-fashioned stockings may be expected to increase to 70,307,000 women by 1967, an increase of 26 per cent over 1953. (Textile Machine Works, 1953 Statistical Survey.)

In the hosiery industry, the one unyielding force is obsolescence. Compare the production of your least efficient machinery with a "Reading 100" Full-Fashioned Knitting Machine—in courses per minute, dozens per hour, salability of fabric. The "Reading 100" is not only a fast multiple-section machine, but it is also a reliable one . . . speed without interruption. And with every Reading Machine you get the benefit of Textile Machine Works' engineering help, service and technical experience. Let us present the "Reading 100" story in your office, at your convenience. W[illegible] today.

TEXTILE MACHINE WORKS, READING, PENNA.

. . . at the Knitting Arts Exhibition Booth 517-526

The "READING 100"
Full Fashioned Knitting Machine

30 Sections

51, 60, 66, Gauge

MR. EXECUTIVE—Is your problem

too much employee turnover?

Check to see if your foremen are "selling" new operatives on their jobs in your mill

By F. S. Wiggington

EXCLUSIVE

"I HAVE tried everything that I know," said one of our foremen recently, "and I'm still losing too many people. I don't know what to do next."

"You might try this," replied his superintendent. "Imagine that the company will pay you fifty dollars for each trainee that you keep for three months. Then act just as you would if that were true. I have an idea that you will surprise yourself."

The time period of three months mentioned in the above conversation was not chosen at random. An analysis of the records of our new employees who quit during the preceding twelve months, with less than one year of employment, indicated that 66 per cent, or two out of three, quit during the first three months. Even more striking, the number who quit during their first week on the job were 19.8 per cent, or one out of five. Those quitting during their first month totaled 38.5 per cent, or almost two out of five.

But to get back to the conversation described above. Suppose that the foreman really was offered fifty dollars for each employee who stayed with him for three months. What would he do?

The chances are that he would use more salesmanship than he had ever suspected that he possessed. He would almost certainly work out effective procedures and techniques for himself without having to be coached or attend any training courses.

SUPPOSE that the foreman really was offered fifty dollars for each employee who stayed with him for three months. What would he do?

Is It Worthwhile? Perhaps the reason that so few foremen adopt this approach toward their new employees is that they have not been made to realize the costs involved.

To arrive at a minimum cost, let us choose an employee who is paid seventy-five cents an hour while in training, and who quits after one week. His wages were thirty dollars. Let us assign an arbitrary cost of fifty dollars as the cost of hiring him. It is not likely that any company would set a lower figure, and most would assign a much higher one. So our trainee cost us eighty dollars—money largely thrown away.

Or let us take the case of the new employee placed on a job where for three weeks he is with an older employee and so gets no production on his own. This time, let us assign the more realistic figure of one hundred dollars as the hiring cost. If the trainee quits at the end of three weeks, we have lost ninety dollars in salary plus the one hundred dollars for hiring, or a total of one hundred ninety dollars. In a large plant, the figures can become staggering when the turnover is high. And the cost of bad work must still be added.

In many cases, the handling of

FIRST impressions are often lasting. The initial interview when the employee starts on the job should give him a start that will make him want to remain.

new employees may offer the foreman his best opportunity for cutting costs. Add to this the fact that, if his trainees remain with him, he will have very few new people to train, while otherwise he may find himself training two or three new employees for each job that comes open.

What Is He Thinking? If indeed we intend to adopt the attitude of the salesman in dealing with our new employees, then let us begin by considering the viewpoint of our prospect. Let us place ourselves in his shoes.

In most cases it is safe to assume that he knew very little about the company when he filled out his application in the employment office. He was looking for a job, and he probably had several places in mind at which to apply if necessary. When he was offered a position, even though he was shown the work, he could not make a very accurate evaluation.

So the chances are that, when he was offered the job, he accepted it with some mental reservations. There was almost sure to be in the back of his mind the thought that if he had looked further, he might have done better. Naturally, then, he approaches the job in most cases with the idea of trying it for awhile to see if he likes it. So while the foreman is looking him over, wondering what kind of employee he will be, he in turn is sizing up the foreman, the job, and the other operatives.

Even though this may not be an exact description of every new employee's state of mind, the fact remains that, when he reports to work, he is evaluating the situation and wondering how he will like it. This is most important to remember.

What Makes Them Stay or Leave? What, then, are the factors which influence a person in deciding whether or not he likes a job well enough to keep it? While a number of items go into the molding of one's feelings about a new job, it is likely that none of them affect him so powerfully as his first impression of his supervisor and of his fellow employees.

It is true that the first question that an applicant usually asks about a job is, "How much does it pay?" It is also true that if the duties are heavy or disagreeable or the working conditions poor the turnover will be high. But it is also a fact that people stay on jobs for years, feeling that they are not being paid enough, or with duties that they dislike, or under working conditions with which they are dissatisfied, because they like their supervisors and their fellow employees.

WHAT is the new employee thinking? Remember that while you are sizing him up, he in turn is sizing up the foreman, the job, and the other employees.

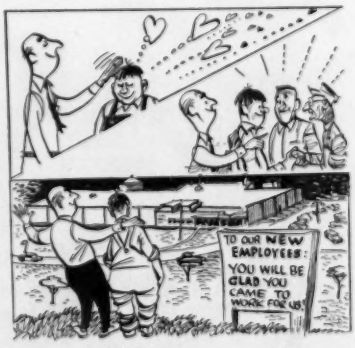
On the other hand, it is almost impossible to keep operatives who dislike their supervisors or their associates on the job or to keep those who feel that they themselves are disliked, regardless of how ideal the other conditions may be.

A person is most sensitive to his working environment when he first reports, and first impressions may harden rapidly into permanent attitudes. Therefore, the foreman should approach his new employee with the following objectives in mind: 1. To make a favorable impression himself. 2. To present the company and the job in a favorable light. 3. To see that the newcomer is well adjusted with his co-workers.

Actually, a foreman who has a friendly interest in his employees will do these things instinctively.

The Interview. A difficulty that exists in most cases is that the new person reports at the beginning of the work period when the foreman is busiest. The temptation is great to turn him over to an older operative until there is time to talk with him. This may be several hours later, and by that time the newcomer has already formed his impressions. It is far better to tell him to make himself comfortable and to let him wait until it is possible to sit down and talk with him. The foreman who says that he does not have time to do this might just as well say that he does not have time to inspect for quality or to check his waste.

In this initial interview, the supervisor is faced with the problem of deciding how much time to use in imparting essential job information and discussing plant rules, policies, and such like. If the company has a manual, this will go a long way toward solving the problem. If not, the list of items to be



APPROACH the new operative with the following objectives: make a favorable impression yourself, see that the newcomer is well adjusted with his co-workers, and present the company in a favorable light.

covered may be rather formidable and consume so much time that there is little time to become acquainted. It is well to remember that if a lot of information is thrown at a person just coming in, much of it will not be assimilated. Also, if he is not started off in a way that will cause him to wish to remain, the information is wasted anyway.

There are two alternatives that may be considered in this connection: 1. The information may be imparted during several short conferences over a period of time. 2. The points to be covered may be typed on a sheet of paper and given to the operative. An alternative that should *not* be considered is to delegate this duty to an older employee.

However the information is handled, the purpose of this first talk should be to become acquainted—to get started on a friendly basis. It does not matter what method a supervisor uses to do this as long as the new employee is made to feel warmth and friendliness.

Now is the time for the foreman to establish a relationship which, if properly cultivated, will be closer than any which will be formed with anyone else. This will usually be easier to accomplish by asking a few leading questions about previous working experience and personal background and really listening to the answers. A good listener will obtain information which will be most valuable later on.

If the supervisor knows exactly what he wishes to learn and what he wishes to establish in the new employee's mind, this interview need not take up more than ten or fifteen minutes. But it is most important for the other party to come out of the conference thinking "I'm going to like to work for this fellow." The foreman should make an active, conscientious effort to accomplish this, simply as a matter of good business for the company.

If the operative is made to feel that the foreman has a personal interest in him, then it will not be difficult to accomplish objective No. 2; that is, to establish in his mind the feeling that he has a good job with a desirable company.

It is not necessary to embark upon a long sales talk in order to do this.

Two or three advantages may be brought into the conversation more or less casually. Perhaps the company offers certain benefits in addition to salary. The work may be steady, or it may be all inside. If the job has certain good points, some of them may be mentioned. If it is disagreeable, it should be pointed out that promotion to other jobs is possible. If starting pay is low, future raises should be mentioned. If the work is on the night shift, then he should be told that he can advance to the other shifts in time.

However, care should be exercised not to make or imply any promises that cannot be kept or to leave over optimistic impressions in his mind. In fact, the disadvantages should be plainly stated and then balanced with whatever good points that may exist.

The first step in accomplishing objective No. 3—namely, the proper adjustment of the new employee with his co-workers—is for the supervisor to keep firmly in mind that it is his objective.

The sole question in the foreman's mind should be who will be most congenial, will have the kind of attitude towards his work that it is desired for the new person to have, and will teach proper job techniques.

Now, if the three objectives discussed above have been stressed—if the foreman has created a good impression personally, if he has been able to present the company and the job in a favorable light, if he has placed the trainee with the proper person—the battle is almost won.

Almost, but not quite. He should see that the new person knows at least two or three selected other employees before the shift is over. He should check performance every hour or so to be sure that the trainee is getting along well on the job. In some cases, particularly with women, he may have to suggest rest periods in order to prevent over-fatigue for the first shift or two. He should be sure that progress is made and encouragement is given. He should endeavor to see that the first shift is completed with some feeling of success.

Are the methods outlined above too much to ask of a busy supervisor? If he really had fifty dollars at stake, it is not likely that he would consider it so.

Actually, if these procedures are practiced faithfully, the results will probably furnish more satisfaction than could possibly be bought with fifty dollars — satisfaction derived from having to train new people only occasionally; satisfaction reflected from solid and lasting friendships with employees who remember and appreciate the helpful interest shown when it was most needed.

After all, these are among the supervisor's richest rewards.

Executive Views

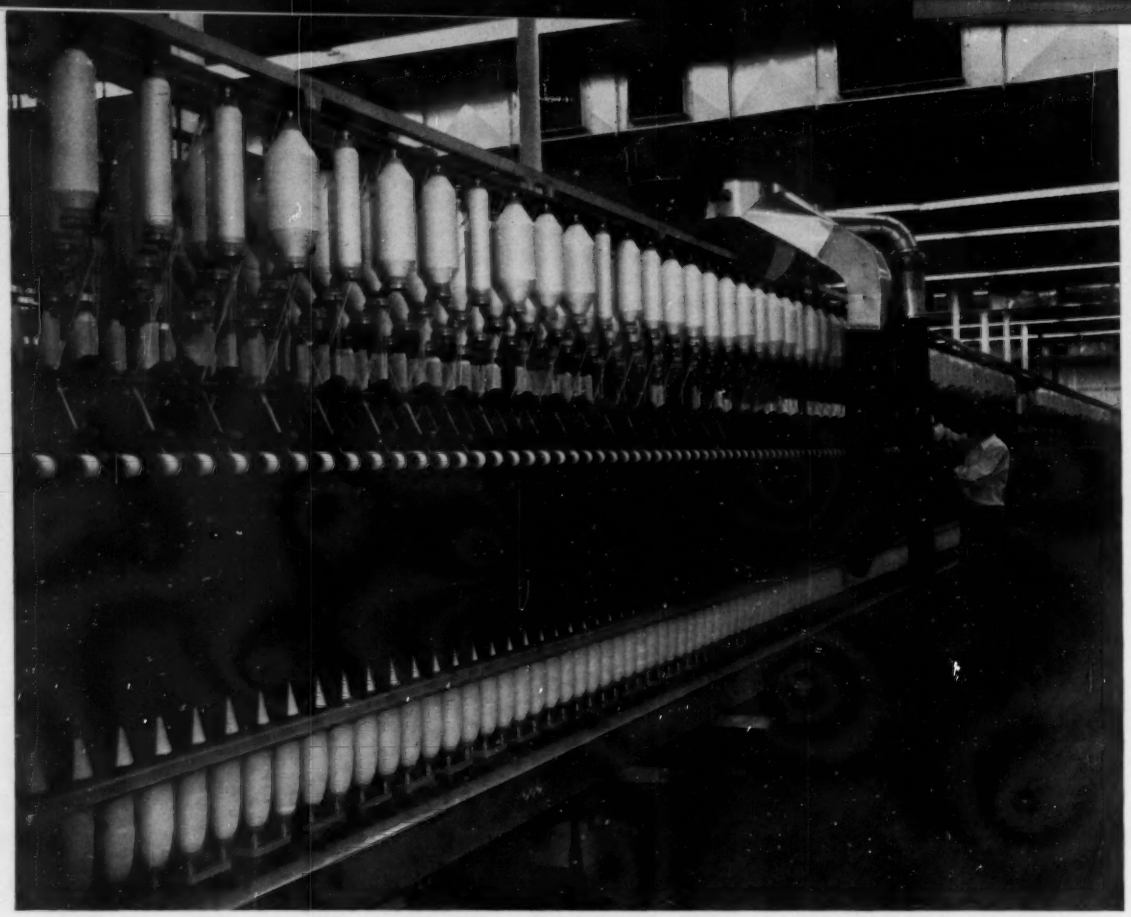
(Continued from page 103)

and millions of bales of American cotton which it is just itching to dispose of in American markets, in Japanese markets or any other markets where anyone will pay a reasonable price for it.

So far, about all that has been preventing this wholesale disposal has been that not just every mill in Japan and India is willing to pay the American support price for American cotton. Instead, they would prefer to buy Mexican cotton or some other cotton which may be selling a little cheaper.

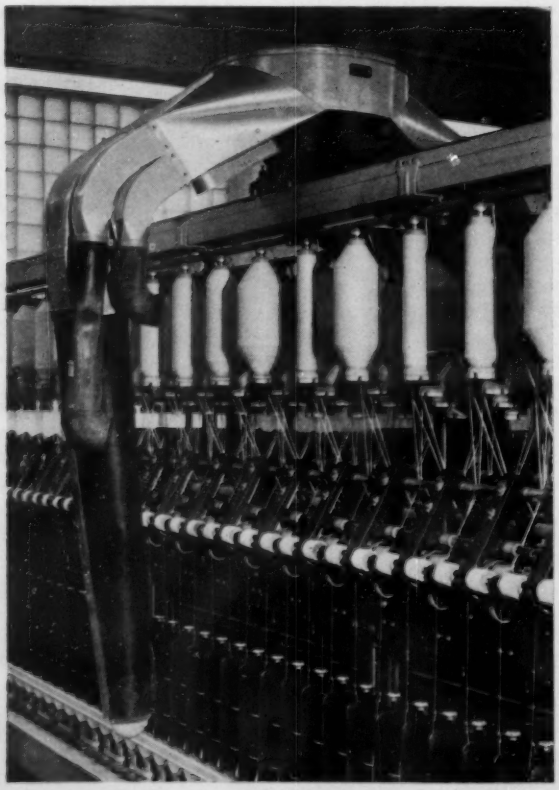
The Mexicans have made great strides in increasing cotton acreage as well as in production per acre, and any American cotton farmer trying to sell in international markets is going to find he is up against strong competition. A recent news story from Bombay, India, reported that the Indian government has further relaxed the export quotas on Indian cotton so that more of their lint might reach foreign mills.

Let us not confuse the issue by assuming that Japan will not be able to get raw cotton in sufficient quantities to supply a big chunk of the world textile market. As far as we can tell, there is no foreseeable shortage of cotton in the world market.



THIS SG-1 FRAME is still lint-free three weeks after cleaning. Improved frame cleaner (foreground) is in tandem with floor sweeper

FRAME CLEANER is type CTF5. View is of opposite side from that shown in photo above.



Staff Prepared

EXCLUSIVE

A. M. SMYRE Manufacturing Co., Plant No. 1, Ranlo, N. C., installed Parks-Cramer floor sweepers on SG-1 spinning frames running 16s-22s combed cotton, and cut manual sweeping schedules from once every 30-40 minutes to once every 24 hours. These frames make a 12-ounce package on 3″ rings with 11¼″ traverse.

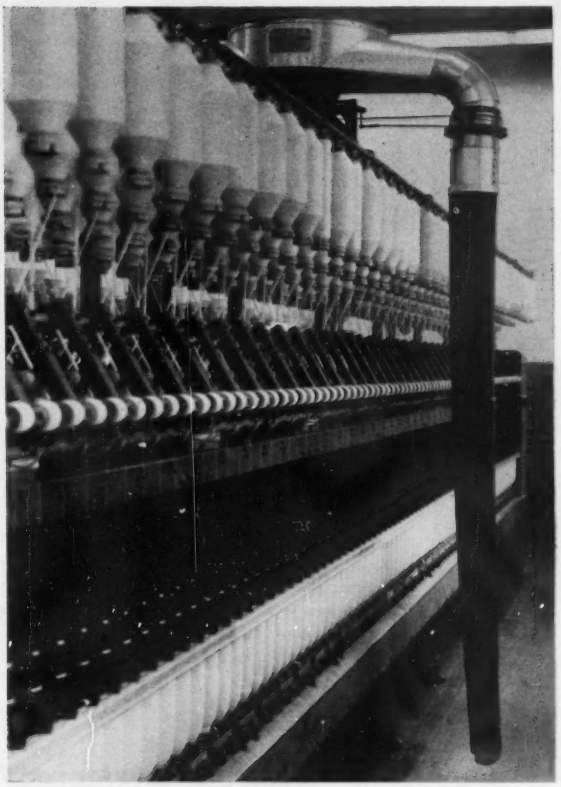
Air turbulence kept considerable fly circulating around the frames, and it was formerly necessary to have a sweeper with broom to clean the alleys at short intervals.

Now all light lint is kept away from frames, permitting an improvement in quality by preventing gouts due to fly getting into the spun yarn.

Lint Goes To Wall. The blowers clean the floor by blowing the lint gently in one direction across the room from frame to frame, alley

Cut Spinning Cleaning Costs

with frame and floor cleaners



FLOOR SWEEPER UNIT has sole function of keeping floor clean. Sweeper is designated type CTS.

ALLEYS BETWEEN SG-1 FRAMES are kept clean with no supplementary sweeping. Samsons are cleaned occasionally.

Do Your Employees Know What Fringe Benefits Cost?

The pattern of labor negotiations has changed from bargaining on wages to a social issue, with labor and management subjected to extreme pressure to achieve the good ends for employees, the members of the Greenville, S. C., chapter of the Society for Advancement of Management were told recently by Leon J. Dunn, former national S. A. M. president, and now vice-president of Veeder-Root Incorporated, manufacturers of counting and computing instruments.

Mr. Dunn said that these social changes, or fringe benefits, can be financed only by increased productivity. He urged stepping up employee communications programs to make sure that everyone sees the connection between greater benefits and productivity, and that people "are inspired to do a better job because of the recognition of this economic principle."

"The rewards are great," said Mr. Dunn. "We can help ourselves, our companies, our employees, and our nation itself by such an achievement. And most important . . . . it will prove that we can meet and solve the challenge of sound human relations for the good of all."

The speaker pointed out that fringe benefits were now more than 40 cents an hour, or greater than the minimum wage of ten years ago.

"American industry has assumed the responsibility for a whole complex of accepted practices requiring payments to employees for time not worked — vacations, paid holidays, sick leave, jury duty, lunch and rest periods," Mr. Dunn said. "Industry has likewise assumed many of the risks, not only of employment, but of life as well — in pension plans, sickness and health benefits, life insurance and hospitalization programs — involving not only the employee, but also his dependents."

Mr. Dunn emphasized that this provides startling evidence of the tremendous stake American business has already invested in the security of its employee.

"Against such a background, the challenge to industry to equate realistically security benefits with productivity becomes more than academic exercise," he said. "Each proposed

Here's a "Stainproof" Room for Growing Families

A "stainproof" room, designed to meet the stringent demands of the modern young homemaker with a growing family, was introduced at the Conrad Hilton hotel during the recent Chicago Home Furnishings Market.

Everything in the room — the draperies, upholstery fabrics, carpeting, and even the walls— was completely stainproof according to the announcement.

Featured in this room were Raphael Infinity draperies, woven of 100% saran fine fibers, which are described as impervious to dirt, stubborn soil, spilled drinks and food, stains from active youngsters — and even ink!

Since the colors are "built-in," they are highly resistant to the sun's rays; therefore, they will retain their bright, new look even after years of constant use, according to The Saran Yarns Co., producer of saran fine denier fibers.

to alley, and toward one wall. One blower operates on two lines of frames on a continuous overhead track. The sweeping unit is attached to a regular frame cleaner. Heavy or oily waste is not moved by the blowers.

Maintenance. To date, maintenance on the cleaning unit has been negligible. Once each week the oiler lubricates the wheels and checks the transmission. The transmission oil is changed every three months, and this unit holds 1½ pints of oil. Only about 10 minutes are required to lubricate all three units: updraft, frame cleaner, and sweeper.

Frame Cleaner Improvements. The cleaners on these frames have been improved considerably by using a new type hood with redirected air outlets (see illustrations on pp. 108-9). There are now 15 air outlets on each unit (including both

new addition to the national 'security' bill must be constructively evaluated by both labor and management in terms of what it might contribute to the continuing health of the enterprise.

"It certainly must be the constant responsibility of management to keep its people educated as to the share of their wages that is being devoted to the benefit program — and for what purpose," he said.

"Unless the United States economy is capable of picking up its annual productive growth of 3 to 4 per cent, then not only American management, but American labor as well will be forced to accept the fact that fringes alone may consume nearly all — if not all — of labor's share in that growth during the next decade," Mr. Dunn concluded.

THREE EMPLOYEE BENEFITS — group insurance, pension plan, and hospital and surgical care — provided by Fieldcrest Mills, Inc., are featured by this attractive display in the Spray, N. C., employment office lobby. Job applicants are invited to take a booklet describing the company's entire program of employee benefits. Also, a recent issue of the "Fieldcrest Mill Whistle" reminded Fieldcrest employees that "take-home pay isn't the whole story" with a feature article entitled "Your Hidden Extras" which began: "Did you know that in 1954 Fieldcrest Mills paid over a million dollars in extra benefits for the well-being of its employees?"

"Director of Physical Distribution" Post Recommended for Multi-Plant Companies

Establishment of a new executive post of "Director of Physical Distribution" for multi-plant companies whose materials handling, warehousing, and transportation programs suffer from duplication and lack of integration is advised by John D. Sheahan of the distribution and materials handling consultant firm of Drake, Startzman, Sheahan and Barclay.

Positioned high enough to oversee the whole company operation, and with authority to originate or influence company policies affecting physical distribution, the director would be able to develop successful methods and coordinate them into a company-wide, standardized program.

Standardization of handling procedures in a multi-plant company has at least three advantages: efficiency of local management is raised to the extent its present practices fall short of standard; each local management is prepared to handle loads received from another plant; and uniformity in practices facilitates supervision and coordination.

The director would have the responsibility and authority to plan, schedule, and control all physical distribution activities.

By establishing such a position, management benefits in three ways:

(1) With physical distribution functions coordinated organizationally at a high level, they can in turn be integrated properly into other company activities.

(2) Thus coordinated organizationally, physical distribution functions are also coordinated operationally. The director can see, for example, when a new program is needed to tie together traffic and warehousing to save money in both, or when a small change in packaging will make a major difference in materials handling.

(3) Under an experienced director, physical distribution becomes the full-time responsibility of an expert, rather than the uncoordinated responsibility of low-echelon officials whose real interest and capabilities lie elsewhere.

sides of the frame). Formerly there were six outlets. The new outlets clean the track, creel, roving in the creel, draft zone, roller beams, ring rails, and tape tension pulleys.

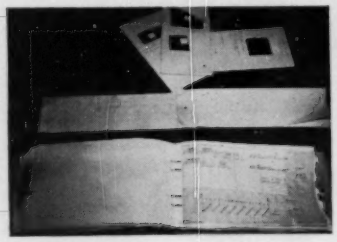
These new frame cleaners do a much better job than the original equipment cleaners, according to officials at the Ranlo plant. With the original type cleaner, schedules called for hand cleaning the roller beam twice in eight hours. The entire frame was blown off with an air hose once each week.

The new cleaner has cut manual frame cleaning to only hand brushing once in eight hours, and the air hose is used only on the builder motion and head end.

All manual cleaning in the SG-1 spinning room has been cut two thirds. A 10 per cent reduction in ends down and an improvement in housekeeping have helped build employee morale and better efficiency throughout the department.

Here are the steps in producing a sample from original idea

DESIGNING is done here by three of the seven-man team in one of the two rooms set aside for this purpose.



PAPERWORK includes (top to bottom) the instruction sheet from the New York office, the sample blanket form, and the mill master instruction sheet.

JACK SPOOLS are stored on these racks; represented here is a small quantity of all yarns used in the mill group.

DESIGN TO SELL!

Staff Prepared
EXCLUSIVE

AT ONE TIME, designing and sample blanket making at Bachmann-Uxbridge Worsted Corp. were carried out in four of the company's mills to service the entire group of 11 mills. Later administration was developed for a single, complete unit located at the Uxbridge, Mass., plant.

This includes a pilot plant independent, except for drawing-in, of the mill proper. Combination of the designing staffs resulted in a reduction from twelve designers and five assistants to seven designers and two assistants. Both the pilot plant and the designing rooms are housed in a 1300-square foot area adjacent to the main weave room of the mill.

This department now serves to provide adequate development of designer's blankets and samples for the company's menswear, womenswear, and automotive branches. The details of fabric layout required to put sample ideas into production flow from this single unit to the entire mill group.

Designing Problems. Many mills prefer to "squeeze in" sample warps on the production floor rather than provide adequate designing department facilities. This is very often done at the expense both of production and of the samples.

Changes in market conditions during the last five years have made this approach impractical: (1) The number of new fibers in use in the mill today both in manipulated blends and in mixtures has increased significantly over the days of cotton, wool, and rayon raw materials; (2) Styling today is different—it is high styling, calling for numerous weave and color variations and is different from the standard cloth constructions and color lines in use prior to World War II; and, (3) The incidence of bringing new fabrics for new end uses into the mill is on the increase.

Recognizing that these conditions required a strong designing department, a comprehensive program for establishing one at Bachmann-Uxbridge resulted in the following facilities:

Style Development: Mens- & Womenswear

The Ideas. Most new ideas originate in the company's New York offices. They may be offered to the mill in the form of swatches cut from blankets with suggestions as to modifications, or may be purely verbal.

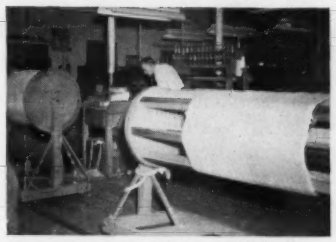
Once an idea has been transmitted in this manner, the members of the mill designing department elaborate on the ideas and make refinements and adaptations to mill conditions of cost, available materials, etc. All blanket warps, however, are dressed to specific instructions from outside the department.

Paperwork. Processing the ideas as received in the department for eventual inclusion in a line consists of several steps.

The instruction cards are interpreted in terms of production language onto a blanket sheet; these sheets usually contain warp description of a blanket of not more than 13 sections planned to finish 36-38 inches. This is authorization for actual production of the blanket and it includes tie-out requirements.

The blanket is made and submitted to the order source, where selections are cut from it and re-

to the finished product at Bachmann Uxbridge Worsted Corp.



WARPING is done on these two hand reels—a narrow one (left), and a wide one (right). Note filling storage bin at left rear.

CHAINS for filling arrangement and weave are built here by the loom fixer assigned to the pilot plant.

A WEAVER ties out ends and replaces them with different yarns. Blankets usually finish 36-38 inches and contain 13 sections.

Bachmann Uxbridge Worsted Corp. keeps pace with complex style trends. Consolidation of scattered designing departments into one central unit reduces over-all facilities required.

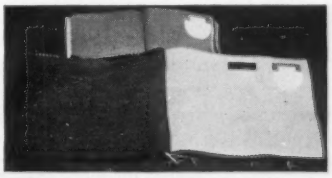
submitted to the designing department. If additional pieces are required for sampling, they are made by the designing department at this point; whether this is the case or not, the standard mill master sheet is made out in 25 copies for distribution at the direction of the planning department.

Reference Swatches. There are three types of references prepared on all styles. If stock dyed, a complete color line is put up on a card for each quality of yarn. In addition 3″ x 5″ and/or 6″ x 9″ swatch books of the color line for each style are prepared for mill and salesmen distribution. For the records of the Uxbridge plant, these lines are mounted on a folding-type color card.

Approvals. The designing department is responsible for passing on production head-ends for all warps starting at Uxbridge. In addition, if one of the mills away from home has any question regarding the master sheet or reference swatches, this department answers it.

PREPARATION of sample requires measuring, numbering, weighing, and issuance of instruction sheet to wet processing department.

THE SAMPLE blanket offers a variety of weave and color combination possibilities. From this, further planning of style adaptation and additional sample making is done, generally in the New York offices.



SAMPLES are made up in either 3″ x 5″ or 6″ x 9″ inch books and distributed to the mill group and salesmen for reference and selling.

A COMPLETE line of a style range is assembled on this folding color card for master reference purposes.

Style Development: Automotive Fabrics

A Special Group. Because of the importance and volume of cloth made at Bachmann-Uxbridge for the interior trim of automobiles, a group of specialists has been assembled to call on the trade in Detroit and to style and follow up production. The designing department includes a designer who works in close liaison with this group.

The Procedure. All ideas for this class of goods originate with the automotive department. These ideas are either made along lines suggested by style sections of the automobile companies or at the initiative of the Bachmann-Uxbridge department based on its knowledge of the trends.

The designing department receives a sample request sheet from the automotive department. These samples are made in 15-yard lengths which are used in two ways: (1) Swatches are cut and tested for fastness to bleeding, fading, and abrasion, (2) They are submitted to automotive manu-

Tips for Solving Spinning Problems with Nylon on Worsted System

Listed below are some problems which sometimes occur when spinning nylon on the worsted system, with suggestions that may be helpful:

Roll Lapping

1. May be due to tackiness (high humidity) if lapping is to synthetic rolls.
2. May be due to static (low humidity) if lapping is to steel rolls.
3. May be due to an unsatisfactory (tacky) oil or finish which has been applied subsequent to the original finish on the nylon.

Cockling

1. Ratch settings may be too close.
2. Improper mixture of fiber lengths in a blend.
3. Long fibers present in staple. Increase ratch slightly in each case.

High Ends Down

1. Count being spun may be over the practical spinning limit for large-scale operations.
2. Tension on yarn may be too great.
3. May be the result of excessive roving piece-ups.

Singling

1. Roving twist may not be great enough to hold it together.
2. May be result of poor roving piece-ups.
3. Where a single end of roving breaks when feeding two ends and the other does not, the traveler may be too light.

High Traveler Replacement

1. Size, weight, or design of traveler may be improper. Larger and/or heavier traveler may be necessary.
2. Finish accumulation may pit rings causing excessive traveler wear.

Uneven Yarn

1. Unevenness in previous operations.
2. Poor drafting because of poor equipment conditions.

Soiled Yarn

1. Fiber soilage in previous operations.
2. Poor or excessive lubrication of machinery and rings.
3. Traveler wear resulting in metallic chips being deposited in yarn.

Poor Package Formation

1. Tension may be too high causing a hard package, or too low causing a soft package.
2. Spindles may be misaligned, or builder motion may not function properly.

From information published by Textile Fibers Dept., E. I. du Pont de Nemours & Co., Inc.

facturers for visual approval and for make-up in a sample car.

After these steps, specification sheets containing details of construction of the cloth plus its test performance are prepared and submitted to Detroit. The Bachmann-Uxbridge automotive group is often called upon at this point to rearrange the various details of the cloth to conform to customer desires of cost, color, etc. Upon approval, a permanent specification is issued from the automobile manufacturer covering the style.

Uxbridge - Detroit communications are facilitated by a sales agent in Detroit.

Making the Samples

Layout. Physical facilities of the Bachmann-Uxbridge designing department include three enclosed, adjacent rooms, two of which are used for designing and administration, and one for preparation of blankets for finishing. These rooms open into the pilot plant area; the entire department is partitioned from the production equipment on the floor.

The Pilot Plant. Rather than search through the mill for enough yarn of a given quality and color at the time of a sample request, small quantities of a complete cross section of this material are kept on hand in the department at all times. This is done in two ways: on jack spools for dressing stored on a special rack built for that purpose, and on bobbins for filling stored in a series of drawers placed around the pilot plant.

Warping facilities include two hand-operated reels, one broad and one narrow.

All drawing-in is performed on the regular production floor; this represents the only sample weaving step that is done outside the pilot plant.

Filling patterns and head chains are built on a standard bench constructed for such work.

There are eight blanket looms in the Bachmann pilot plant and all are 45-inch reed width equipment; they are arranged in two rows of four each.

Preparation for Finishing. Off-loom blankets are numbered, measured, and covered by written instructions for dyeing and/or finishing in the separate room provided for that purpose, as mentioned.

Since the 38-inch finished width usually resulting from a run in the production wet processing departments is much narrower than standard production, a strip of cloth is sewn to one edge of the samples to prevent the need for adjustment of finishing equipment.

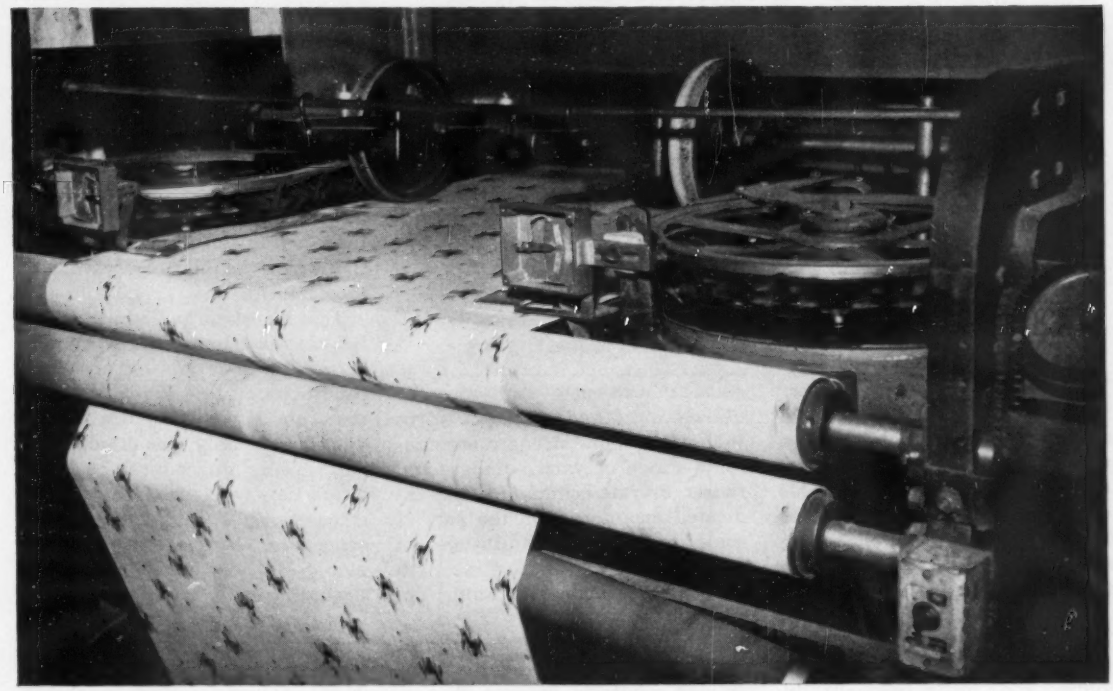
Personnel. The designing department is staffed by a full complement of specialists who are always available just for work in that department. In actual designing this includes the head of the department, six other designers and two assistants, plus a man in the preparation department.

Pilot plant personnel include seven weavers, one fixer who also builds pattern chains, and two dressers.

The picture sequence [pp. 112-113] illustrates the journey of a sample from its birth to the finished product.

This pilot plant services all departments with blankets, experimental ends, and sample pieces; since it is isolated from the rest of the mill's production facilities, it does not interfere with production. Delays in sampling are minimized.

A Double-Duty Tenter



This machine can be used for { 1. Shrinkage control 2. Regular finishing

Staff Prepared EXCLUSIVE

AN OVERFEED tenter was installed about 18 months ago at Rock Hill Printing and Finishing Co., Rock Hill, S. C., primarily for controlled shrinkage processing of synthetic fabrics. Aside from controlled shrinkage processing, the machine is used as a regular tenter frame when no overfeeding is necessary.

Results obtained with this installation have been good, according to an official who said that the mill has had no trouble in processing goods which require shrinkage control.

The overfeed serves as a control apparatus for the preshrinking operation, and the feed is controlled by a Reeves drive. This machine permits preshrinking and finishing (addition of oils, gelatins, resins, etc.) on the same range instead of finishing on one machine and preshrinking on another. Considerable time and labor are thereby saved.

The overfeed tenter is scheduled to be amortized in three years from the date of installation. This tenter excells on synthetic fabrics, but cottons are also run with good results. The machine operates at speeds ranging from 40 to 100 yards per minute with the overfeed in action. As a regular tenter, speeds range from 40 to 200 yards per minute.

Operating in conjunction with a James Hunter hot flue dryer, this Marshall & Williams tenter employs fluted clips instead of pin clips, thereby avoiding pin holes in the fabric and so effecting an improvement in quality.

No maintenance has been necessary other than for routine wear. Lubrication is the same as for other tenters in the plant.

how vat dyeing affects

1. Vat dyed yarns are stronger than similar but undyed yarns.

2. Higher yarn strength is produced if cotton is dyed as yarn rather than as raw stock.

3. Lower spinning twists can be used with vat dyed stock, or

4. Shorter staple can be used to produce a given yarn strength if cotton is stock dyed.

By Jack E. Sands, Louis A. Fiori, and John J. Brown
*Southern Regional Research Laboratory**

EXCLUSIVE

IT HAS been recognized for many years that processing difficulties are involved in the subsequent handling of dyed raw stock and yarns and are attributable, singly or collectively, to the dye, the method of application, the resultant removal of waxes, or the lack of a full appreciation of the fundamental problems involved in mechanical processing.

Literature on the subject of dyeing and its subsequent influence on fiber, yarn, and fabric properties and processing characteristics is meager. One study on the effects of extracting and drying on the carding and spinning of raw stock dyed cotton[1] showed that the dyeing operation produces increases in card waste and in nepping potential and decreases in yarn quality. Another study[2] showed that there are factors arising in the dyeing procedures which exert considerable influence on the fiber and manufacturing properties of cotton.

A study of the effects of cotton fiber strength on single yarn properties and on processing behavior[4] indicated, among other results, that a new high strength variety produced stronger yarns than did two low strength varieties for a range of yarn numbers and twists. Private communications indicated an interest on the part of some industrial organizations in the reaction of this high strength variety to chemical finishing operations.

Primarily, the point of interest was whether high strength cottons reacted similarly after dyeing as do low strength cottons, since the experience of most of these organizations indicated significant strength losses in the final product, regardless of the type of dye or dyeing process used or the point in the mechanical processing at which the cotton was dyed. Comparisons were made to evaluate the effect of a vat dyeing procedure on product quality and on the processing characteristics of three varieties of cotton. The cotton was dyed in fiber, yarn, and fabric form.

This investigation, which should be considered exploratory in nature because of the experimental conditions of test, limited sample sizes, and use of only one type of dye, covers only the effects of a vat dyeing procedure on fiber properties, twist-strength relationships of single yarns, and on fabric properties. Special emphasis is placed on the behavior of high strength versus low strength cottons in reference to processability and effect on product quality. It is understood that different dyestuffs (direct, sulfur, naphthol, etc.) and different colors (black, blue, yellow, etc.) may produce ef-

TABLE 1. VAT DYEING PROCEDURE

1. Wet out:
   0.1% Triton X-100 } 30 min. at 200°F.
   0.2% Sodium Carbonate }
   then drop and cool to 100°F. with cold water
2. Make new bath and add:
   3/4 oz. per gal. of both Caustic Soda and Sod. Hydrosulfite
   Raise to 120°F., circulate for 10 min.

   Stock dye solution prepared separately:
   270 grams Jade Green
   270 " Caustic Soda
   500 " Sod. Hydrosulfite

   then add dye in three equal parts over a period of 30 min.:
   then continue to circulate for 45 min.
3. Drop dye bath and wash for 30 min. with cold water.
4. Make new bath and add:
   0.1% Gardinol LS Powder } 20 min. at 150°F. and then
   0.25% Sodium Perborate } 20 min. at 180°F.
5. Drop bath, add fresh water and
   0.5% Sodium Chloride—20 min. at 120°F.
6. Drop bath, drain, centrifuge and dry.

*One of the laboratories of the Southern Utilization Research Branch, Agricultural Research Service, United States Department of Agriculture.

†Mention of trade names does not imply their endorsement by the Department of Agriculture over similar products not mentioned.

cotton

fects different from those reported here.

Materials and Methods

Samples. Three cottons with fiber strengths of 78,000 to 93,000 psi and having other important fiber properties approximately equal were used. These varieties were identified as Hopi Acala 50, Raingrown A, and Irrigated A.

Processing and Testing Procedures. The evaluation of the effect of a vat dyeing procedure was based on (1) undyed versus dyed raw stock, (2) undyed versus dyed single yarns, and (3) undyed versus dyed fabrics produced from the Hopi Acala 50 and Raingrown A varieties.

In the absence of a stock-dyeing machine, raw stock dyeings were made in a closed, pressure-type pilot-plant model kier. Admittedly, this piece of equipment lacks the strong circulation of a raw stock dyeing machine; however, satisfactory dyeings were obtained on approximately 35-pound lots of each variety following the procedure in Table 1.

The dyed stock and equal quantities of undyed controls were processed on conventional long-draft processing equipment into 22s/1, 30s/1, 40s/1, and 50s/1 yarn numbers, using twist multipliers from 2.75 to 5.75 in seven or nine increments as needed for full definition of twist strength curves. Quantities of 22s/1, 30s/1, 40s/1, and 50s/1 yarns were spun from undyed stock of each variety, and one-pound lots of each were dyed on a 6-pound package machine using Franklin springs†. In addition, a print cloth (80 x 80) was woven from undyed stock of two of the varieties using 30s/1 yarns (4.40 TM) in the warp and 40s/1 yarns (3.50 TM) in the filling.

Fabrics were scoured, bleached, and vat dyed at open width on a

Summary of This Report

Three cottons, identified as Hopi Acala 50, Raingrown A, and Irrigated A, and differing in fiber strength from 78,000 to 93,000 psi, were dyed by use of a standard vat dyeing procedure. Evaluation of the effects of a vat dyeing procedure on fiber, yarn, and fabric properties and on processing efficiency was based on (1) undyed versus dyed raw stock, (2) undyed versus dyed single yarns, and (3) undyed versus dyed fabrics.

It was shown that the raw stock vat dyeing process reduced fiber length slightly. In general, vat dyed yarns are stronger than undyed yarns with the highest strength resulting from yarns dyed after spinning.

Lower twists are required for maximum strength for vat dyed than for undyed yarns, with the yarns made from the dyed stock reacting less sensitively to low twists and more sensitively to high twists than those made from undyed stock. Vat dyed raw stock processes into yarns of lower grade than does undyed stock, with the high strength variety (Hopi Acala 50) producing yarns of better grade than the other two varieties in both the dyed or undyed state.

The vat dyeing of a print cloth (80 x 80) caused strength changes of 15 per cent loss to 15 per cent gain depending on variety, method of testing, and method of sampling.

TABLE 2. EFFECT OF VAT DYEING ON FIBER PROPERTIES

Fiber Property	Hopi Acala 50		Raingrown A		Irrigated A	
	Undyed	Dyed	Undyed	Dyed	Undyed	Dyed
Length						
Suter-Webb						
UQ (in.)	1.20	1.18	1.16	1.11	1.22	1.18
Mean (in.)	1.00	0.98	0.91	0.86	1.00	0.94
C.V. (%)	28	29	36	38	30	35
Fibrograph						
UHM (in.)	1.17	1.14	1.10	1.02	1.16	1.13
Mean (in.)	0.96	0.92	0.88	0.78	0.94	0.90
UR (%)	82	81	80	76	81	80
Fineness						
Suter-Webb (µg./in.)	3.8	3.6	4.0	4.0	4.2	4.1
Micronaire (µg./in.)	4.6	4.5	4.3	4.4	4.4	4.5
Arealometer						
Specific Area (mm^2/mm^3)	439	433	458	441	446	439
Perimeter (µ)	45.5	38.6	45.5	40.2	50.2	39.5
Cell Wall Thickness (µ)	2.82	3.09	2.69	2.95	2.69	2.98
Immaturity Ratio	1.59	1.33	1.66	1.41	1.78	1.38
Strength						
Pressley Index (lb./mg.)	8.6	8.3	7.2	7.4	8.2	8.6
Stelometer (gm/grex)(2.5 mm)	2.23	2.30	1.82	1.96	2.13	2.23
Maturity						
Sodium Hydroxide Method (%)	94	94	88	90	88	87
Elongation						
Stelometer (2.5 mm)	0.35	0.35	0.33	0.34	0.32	0.33

TABLE 3. EFFECT OF VAT DYEING ON NEP FORMATION, UNIFORMITY, AND APPEARANCE

Quality	Hopi Acala 50		Irrigated A		Raingrown A	
	Undyed	Dyed	Undyed	Dyed	Undyed	Dyed
Neps (Per 100 sq. in.)	14.4	19.2	51.1	61.7	40.6	58.3
Uniformity						
Card Sliver (% C.V.)	1.85	2.24	2.20	2.84	2.20	2.32
1st. Drawing (% C.V.)	3.72	3.70	3.78	4.57	4.48	4.67
2nd. Drawing (% C.V.)	3.98	4.18	4.13	4.06	4.72	4.85
Roving (% U.D.)	——	——	——	——	8.2	10.5
Yarn (% U.D.)						
22/1	16.3	16.1	18.3	21.9	18.1	20.7
30/1	19.6	21.1	21.7	24.5	20.3	23.5
40/1	20.1	19.3	23.6	26.1	23.6	26.8
50/1	22.4	22.5	24.9	26.5	24.9	26.6
Grade						
22/1	A	B+	B+	C	B+	B
30/1	B+	B+	B	C	B+	C+
40/1	B+	B+	C+	C	B	C+
50/1	A-	B	C+	D	B-	C+

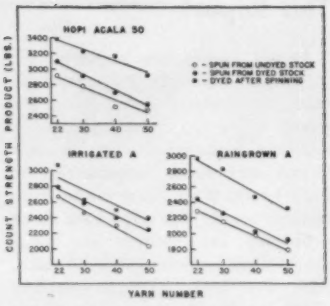


FIG. 1. Skein strength of yarns vat dyed after spinning and yarns spun from raw and vat dyed stock.

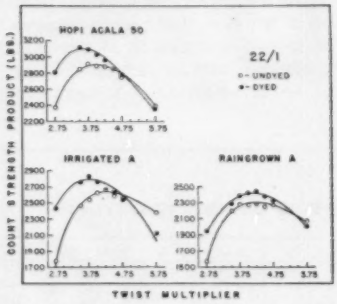


FIG. 2. Effect of vat dyeing on the skein strength of 22s/1 carded cotton yarns.

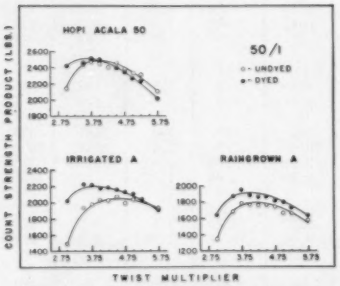


FIG. 3. Effect of vat dyeing on the skein strength of 50s/1 carded cotton yarns.

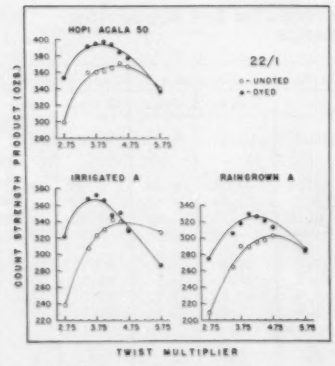


FIG. 4. Effect of vat dyeing on the single strand strength of 22s/1 carded cotton yarns.

jig. Raw stock, yarn, and fabric dyeing procedures were identical except for process differences.

Neps were counted, uniformity of sliver was measured by a converted Saco-Lowell Sliver Tester†[5], uniformity of roving and yarn was measured on the Uster Uniformity Tester†, and yarn grades were evaluated by comparison with yarn appearance standards in accordance with A.S.T.M. procedure[3]. Skein strength determinations were made on a pendulum-type tester. Single strand strength and elongation measurements were made on an automatic, constant rate of loading tester. Strip, grab, and trapezoid tear tests were made for strength, both warp and fillingwise; and analyses were made of weight per square yard on scoured, bleached, scoured and dyed, and bleached and dyed fabric samples.

Analysis of Data

The results of the effect of the dyeing procedure were evaluated from five standpoints: (1) fiber properties; (2) nep formation; (3) uniformity; (4) yarn properties; and (5) fabric properties.

Fiber Properties, Nep Formation, and Uniformity. Table 2 shows the effect of the dyeing process on fiber properties. Regardless of variety, maturity, strength (Pressley†) and fineness values (Suter-Webb and Micronaire†) remained practically unchanged, while decreases are seen in length (Suter Webb and Fibrograph†), specific area, perimeter, and immaturity ratio values with an increase being noted in cell-wall thickness.

Contradictions observed between instruments, viz., constant fineness with decreases in specific area or with decreases in perimeter, could emphasize a difference in qualitative discernment between the two test methods; however, the contradiction between a decrease in specific area and a decrease in perimeter has not been reconciled except by the possibility of a change in cross sectional configuration due to the scouring and dyeing procedure.

Table 3 shows the effect of the vat dyeing procedure on nep formation and uniformity for each variety. In all cases the dyeing process increased nep formation.

It was assumed that equal product quality could be maintained for dyed and undyed cotton using the same drawing and roving process organization. However, limited experimental runs indicated that for the drawing processes uniformity differences between undyed and dyed lots were not too great, but for the roving process uniformity differences were excessive. It was therefore concluded that the same roll setting should not be used for both dyed and undyed cottons at the roving process. Experimental settings based on Fibrograph upper half mean lengths were used with some degree of success.

As shown in Table 3, dyed slivers, rovings, and yarns are less uniform than their undyed counterparts. This may be the result of using less than optimum processing conditions for vat dyed stock. In addition, vat dyed raw stock processed into yarns of lower grade than did undyed stock, with yarns from the Hopi Acala 50 being the best in either case. There is reason to believe that studies aimed at establishing optimum conditions for processing raw stock dyed cotton might reduce or possibly eliminate these differences in uniformity.

Yarn Properties. Only those data derived from 22s/1 and 50s/1 yarns, except in Figure 1, are being reported, since the characteristics of the 22s/1 and 50s/1 yarns were typical of the full range of yarn numbers processed.

Figure 1 shows the improvement in skein count-strength product for yarns vat dyed after spinning and yarns spun from vat dyed raw stock over the control yarns spun from undyed stock. The control yarns and the yarns dyed after spinning were spun at twists which had been found in a previous study[4] to give maximum strength. The yarns spun from dyed raw stock were processed with a range of twists with the points of maximum strength being reported. The dyed yarns are stronger than the undyed yarns with the highest strength result-

ing from yarns dyed after spinning.

Improvement in yarn strength as a result of yarn dyeing was about the same, percentagewise, for the Hopi Acala 50 and Irrigated A cottons, ranging from about 16 per cent for the 22s/1 yarns and 19 per cent for the 50s/1 yarns. On the other hand, comparable values for the Raingrown A are about 30 per cent for both the 22s/1 and 50s/1 yarns. This may indicate greater improvement in strength of dyed versus undyed yarn by virtue of differences in condition of growth (raingrown versus irrigated) rather than by virtue of differences in fiber strength. It is interesting to note, however, that regardless of greater strength improvement of Raingrown A over Hopi Acala 50, the latter high strength cotton maintained its strength superiority in both the dyed and undyed yarns.

Since strength improvements due to a vat dyeing procedure exist regardless of variety or yarn number, within the limits of this study, it is logical that at least some, if not all, of this improvement in strength could be due to increased interfiber friction resulting from the removal of waxes during the chemical processing.

Figures 2 and 3 show the twist-skein strength relationship of 22s/1 and 50s/1 yarns spun from undyed and vat dyed stock. The most significant processing change observed in the spinning characteristics of dyed lots is the lower twist required for maximum strength. In addition, at the higher twist level the strength of the dyed yarns fell below that of the undyed control. The general trend of these curves indicates that dyed stock reacts less sensitively to low twists and more sensitively to high twists than does undyed stock.

Figures 4 and 5 show the twist-single strand strength relationship of 22s/1 and 50s/1 yarns spun from undyed and vat dyed stock. These curves indicate practically identical twist-strength trends to those exhibited by the curves of Figures 2 and 3. The typical higher twist required to obtain maximum strength for this method of test as compared with the skein method is generally evident. However, one interesting aspect is that this difference in twist level for maximum strength as defined by these two test methods is substantially less for the dyed yarns.

Figures 6 and 7 show the twist-elongation relationship of 22s/1 and 50s/1 yarns spun from undyed and vat dyed stock. This vat dyeing procedure produced little effect on the elongation properties of yarns spun from dyed Hopi Acala 50, Irrigated A, and Raingrown A cottons. It will be noted that elongation increases with twist, as would be expected.

Fabric Properties. Raveled-strip strength tests on bleached and dyed fabrics showed that the higher strength cotton produced the stronger fabric. However, this test on warpwise samples showed a loss in strength from the grey state for both the Hopi Acala 50 and the Raingrown A varieties; whereas on fillingwise samples increases in strength from the grey state were shown for all three varieties.

Results from grab and trapezoid tear strength tests were somewhat similar to those from the raveled-strip strength test except that in the trapezoid tear strength test both warp and fillingwise values showed some loss from grey to bleached and dyed state.

Due principally to the removal of waxes and other foreign matter, the weight per square yard decreased from 3.6 to 3.16 oz per square yard in going from the grey to the bleached and dyed state. No dyed yarns were used in the weaving phase of this study. It is not known to what extent the gain in strength imparted to the yarns by the dyeing process, either before or after spinning, might influence the physical properties of the fabrics woven from such yarns.

Practical Considerations

The results of this study showed that a raw stock vat dyeing process produced significant changes in some fiber properties. In addition, while the reactions to the dyeing process of high, medium, and low strength cottons were similar, the high strength cotton maintained its position of superior strength

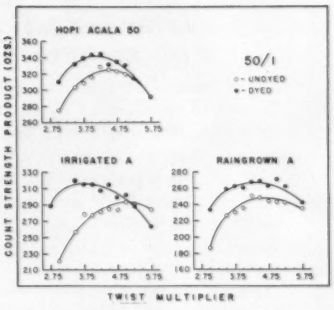


FIG. 5. Effect of vat dyeing on the single strand strength of 50s/1 carded cotton yarns.

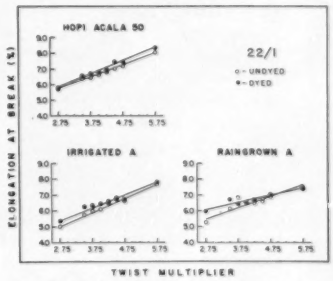


FIG. 6. Effect of vat dyeing on the single strand elongation of 22s/1 carded cotton yarns.

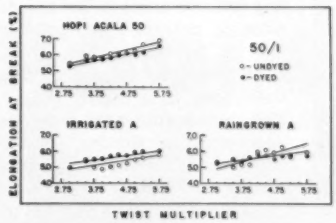


FIG. 7. Effect of vat dyeing on the single strand elongation of 50s/1 carded cotton yarns.

over the range of yarn numbers spun.

In general, vat dyed yarns are stronger than undyed yarns with the highest strength resulting from yarns dyed after spinning. However, lower spinning twists can be used in processing vat dyed stock to produce yarns which are stronger than comparable yarns spun from undyed stock. Therefore, producers of colored yarn fabrics such as towels, tickings, plaids, ginghams, chambrays, etc., have the choice of a processing compromise. This concerns the choice of either the higher ultimate strength which is available when yarns are dyed or higher production which is available when spin-

Inter-Industry Labor Mobility

(The Case of the Displaced Textile Operative)

The results of a survey conducted to discover to what extent New England textile operatives displaced from their jobs by the liquidation of textile mills are finding employment in the region's expanding industries, are contained in a report by William H. Miernyk, director of Northeastern University's Bureau of Business and Economic Research, publication of which was sponsored by the New England Textile Committee, a public service group representing labor, management, and the public appointed by the governors of the six states to study the region's textile problems.

Dr. Miernyk studied the case histories of 1,700 displaced operatives in six communities, and analysis of the six cases led to the following general conclusions:

(1) Less than half the displaced operatives were re-employed, and two-thirds of those who had found jobs were earning less; in some cases the decline in earnings was substantial.

(2) Persons displaced from their jobs in a highly diversified, non-textile area were less successful in finding employment than those in textile areas where other mills offered job opportunities to some of the displaced operatives.

(3) Although textile employment was declining during the period covered by the survey, more of the displaced operatives had found new textile jobs than in any other industry or occupation.

(4) The majority of those who had found non-textile jobs indicated a preference for textile employment.

(5) Almost half of the employed thought their new jobs were generally less satisfactory than their mill jobs had been.

(6) More than half of the employed were without work for ten weeks or less between jobs. In other cases, however, the period of unemployment ranged from eleven to more than thirty-one weeks.

(7) The average person in the survey was older than the average member of the civilian labor force in Massachusetts.

(8) Ninety per cent of the employed operatives found their new jobs through friends or relatives, or through application at the gate.

(9) A very small percentage of the unemployed were on relief. Almost one-third were receiving unemployment compensation; one-fourth were dependent upon the incomes of husbands or wives, and 12 per cent were dependent upon other relatives. Another 13 per cent received some form of retirement income including social security payments.

(10) In general, the displaced operatives were not well informed about local labor market conditions. Their attitudes and outlook were heavily colored by their personal experiences.

The report shows that the loss of textile jobs has had a serious impact on the economy of New England. The growth industries have not provided enough jobs to absorb new entrants into the labor force as well as the displaced textile operatives. As a consequence the unemployment rate in New England is above the national average.

Although this report deals with the experience of people attached to a particular group of industries, and the areas and the length of time covered have also of necessity been limited, the findings and conclusions are not equally restricted, according to Dr. Miernyk — they should apply in some degree to other industries, places, and times.

Dr. Miernyk said that positive programs of aptitude testing, retraining, and job placement may ameliorate conditions in the depressed communities, but such programs can be successful only if there is a high level of employment in the country as a whole.

A further decline of textile employment in New England would add to the transitional difficulties since the report shows that the remaining textile mills in New England have provided the best source of jobs.

ning dyed stock. In addition, by virtue of the higher ultimate strength potential in processing vat dyed yarns, stock of shorter staple may be utilized, and at the same time, yarn quality specifications maintained. The vat dyeing of 80 x 80 print cloth woven from Hopi Acala 50, Irrigated A, and Raingrown A cottons caused strength changes of 15 per cent loss to 15 per cent gain depending on variety, method of testing, and method of sampling.

It should be realized that these results were obtained under limited experimental conditions and may deviate somewhat from results obtained under commercial conditions. Since literature and industrial sources are in conflict on the effect of dyeing processes on mechanical processing characteristics and product quality, these results indicate that additional work is needed in this field.

Acknowledgment

The authors wish to express their sincere appreciation to members of the Cotton Chemical Processing Section for chemically processing the raw stock, yarns, and fabrics; to fellow staff members of the Cotton Mechanical Processing Section for processing the cotton into yarns and fabrics and making the uniformity tests, calculations, and charts; and to members of the Testing Unit of the Analytical and Physical Section for making the physical tests on the fibers, yarns, and fabrics.

References

1. AATCC, Southeastern Section, Intersectional Contest Entry, A Study of the Effects of Extracting and Drying on the Carding and Spinning of Raw Dyed Cotton, *Am. Dyestuff Reptr.* 31, P628-29 (Dec. 7, 1942).
2. AATCC, Southeastern Section, Intersectional Contest Entry, The Effect of Raw Stock Dyeing on the Fiber and Manufacturing Properties of Cotton, *Am. Dyestuff Reptr.* 32, P527-31, P538 (Nov. 22, 1943).
3. American Society for Testing Materials, Committee D-13, "ASTM Standards on Textile Materials (With Related Information)," ASTM Designations D180-52T, D414-52T, D1441-52T, D1442-52T, and Appendix X. Philadelphia: 1952.
4. Fiori, L. A., Brown, J. J., and Sands, J. E., Effect of Cotton Fiber Strength on Single Yarn Properties and on Processing Behavior, *Textile Research J.* 24, 503-507 (1954).
5. Rusca, R. A., Conversion of the Saco-Lowell Sliver Tester to Electrical Recording, *Textile Research J.* 20, 780-86 (1950).
6. USDA, ARS, SURB, CA-25, Feb. 18, 1954.

Clemson

N. C. State

AMERICA'S TEXTILE SCHOOLS

Lowell

Bradford - Durfee

Reprints of this 6-page folder will be furnished on the basis of one per reader so long as the supply lasts.

"... The basis for a complete textile education includes the elements of engineering management and style. Each institution may develop its 'Major' around any one of the themes and produce a good textile graduate ... He may be taught 'Minors' in the other two fields. In any event, he needs to get the feel of industry which in my mind is a combination of the three."—Frederick M. Feiker, Dir. Nat'l Academy of Sciences, Washington, D. C.

Textile Industries presents A

	ALABAMA POLYTECHNIC INSTITUTE; SCHOOL OF TEXTILE TECHNOLOGY	BRADFORD DURFEE TECHNICAL INSTITUTE	CLEMSON AGRICULTURAL COLLEGE, SCHOOL OF TEXTILES	GEORGIA INSTITUTE OF TECHNOLOGY
LOCATION	Auburn, Alabama	Fall River, Massachusetts	Clemson, South Carolina	Atlanta, Georgia
MAJOR OFFICER	Cleveland L. Adams, Head	Leslie B. Coombs, President	Hugh M. Brown, Dean	Herman A. Dickert, Director
FOUNDED (Textile Dept. only)	1930	1904		1899
SPONSORSHIP	State of Alabama, Alabama Textile Education Foundation	Commonwealth of Massachusetts	State of South Carolina J. E. Sirrine Foundation	Textile Education Foundation, Inc.
1954 ENROLLMENT (Textile Dept. only)	147	100 (600 Evening School)	505	257
TEXTILE FACILITIES	The School is one of 56 major buildings on campus. It teaches textile subjects only; other courses integrated in other college departments	The Textile Building is one of five making up the Institute	College Campus—1,645 acres. Sirrine Hall (Textile School) has 150,000 sq ft.	Harrison Hightower Engineering Building
MANUFACTURING LABORATORIES	Weaving, cotton spinning, synthetics	Cotton spinning, warping and slashing, weaving	Throwing weaving, cotton, wool and worsted spinning	Cotton, wool, synthetics, knitting
CHEMICAL LABORATORIES	Dyeing, bleaching, finishing, testing	Dyeing, finishing	Dyeing, finishing	Dyeing, finishing, testing
OTHER	Physical testing, research	Microscope, testing, research	Fiber research lab. Physical testing, evenness lab	Testing, physical and chemical research
ADMISSION REQUIREMENTS	Graduate or accredited high school	High School graduate with 15 credits: (3 math, 1 science, 4 Eng., 1 history required)	High school graduate with 16 units (3 English, 1½ algebra, 1 plane geometry suggested)	High school graduate with suitable record: 15 units (3 English, 2 algebra, 1 plane geometry, 1 history, 2 science, 6 optional)
MAJOR TEXTILE CURRICULA				
I — **DEGREE OR SUBJECT:**	B.S. in Textile Chemistry	B.S. in Textile Engineering	B.S. in Textile Engineering	Bachelor of Textile Engineering
LENGTH:	12 quarters	4 years	4 years	4 years or 5 year co-op plan
PREPARATION FOR:	Textile Chemists, Dyers	General application	Production, research and development work	Textile Engineering
II — **DEGREE OR SUBJECT:**	B.S. in Textile Engineering	B.S. in Textile Manufacturing	B.S. in Textile Manufacturing	B.S. in Textiles
LENGTH:	12 quarters	4 years	4 years	4 years or 5 year co-op plan
PREPARATION FOR:	General Adaptation to Industry	General application with emphasis on production	Production and management work	Textile Manufacturing, Textile Chemistry and Dyeing
III — **DEGREE OR SUBJECT:**	B.S. in Textile Management	B.S. in Dyeing and Finishing	B.S. in Textile Chemistry (dyeing and finishing)	M.S. in Textile Engineering
LENGTH:	12 Quarters	4 years	4 years	1 to 2 years
PREPARATION FOR:	Production and Operational Management	Dyers and Finishers	Various positions in chemical phase of industry	Research and development work
IV — **DEGREE OR SUBJECT:**	Textile Manufacture (Certificate)	B.S. in Textile Styling	B.S. in Knitting Development	M.S. in Textiles
LENGTH:	12 quarters co-op	4 years	4 years	1 to 2 years
PREPARATION FOR:	Manufacturing Supervision	Fabric Designers	Yarn manufacture, all phases of knitting industry	Research and development work
V — **DEGREE OR SUBJECT:**		B.S. in Art and Product Development	M.S. Textile Chemistry	
LENGTH:		4 years		
PREPARATION FOR:		Fabric Stylist Fashion Illustration	Various places in chemical phase of industry	
EXTRA CURRICULAR ACTIVITIES	General campus activities and fraternities; Phi Psi, Tau Beta Pi	Class organized social functions sports Societies: Engineering, ACS, A.A.T.C.C. Fraternities: Phi Psi, Epsilon Phi Pi Sorority: Kappa Sigma Phi Clubs: Cosmopolitan, Varsity	R.O.T.C. 5 honorary societies Clubs Engineering Societies Y.M.C.A. Musical activities All collegiate athletics	Professional Fraternities Professional Societies Honor Societies Athletics
STUDENT HOUSING	Men: Magnolia Hall, Auburn Hall, Alumni Hall (total 5000 accommodations) Women: Girls' Quadrangle (1200 accommodations)	None	Cadet Barracks, Y.M.C.A., 398 houses for veteran students with families	Dormitories, Fraternity Houses
TUITION	Free to Alabama residents, certain fees assessed Non-resident tuition: $45.00 per quarter plus fees.	Massachusetts Resident Tuition: $150 per year Non-Resident Tuition: $250 per year Foreign students: $500 per year	South Carolina Resident Tuition: $100 per year Non-Resident Tuition: $300 per year Note: Total cost to attend: $900-$1000 per year	Georgia Resident Tuition: $216 per year Non-Resident Tuition: $600 per year
PLACEMENT FACILITIES	Student Guidance Service	Prof. W. E. Marston, Director of Year Round Service	Dean H. M. Brown in charge of placement bureau	Central Ga. Tech Placement Division through Associated Deans of Students
INDUSTRIAL SERVICES	Applied and Fundamental Research	Staff available for consultation Evening School Summer School	U. S. Dept. of Agriculture cotton fiber and spinning laboratories, ACMI Div. of Technical Service, Research	Testing, Research, Advisory, Ga. Tech Engineering STA (contract research), Gen. Consulting, Q.M. Training Program

AMERICA'S TEXTILE SCHOOLS

which are members of the National Council for Textile Education

This chart was prepared by the the members of the National Co data supplied by the member sch members of the NCTE are includ

In addition to the major tex graduate work in textiles is being Institute, Princeton, N. J., and t Charlottesville, Va.

	LOWELL TECHNOLOGICAL INSTITUTE	NEW BEDFORD INSTITUTE OF TEXTILES AND TECHNOLOGY	NORTH CAROLINA STATE COLLEGE, SCHOOL OF TEXTILES	PHILADELPHIA TEXTILE INSTITUTE	RHODE ISLAND SCHOOL OF DESIGN	TEXAS TECHNOLOGICAL COLLEGE
	Lowell, Massachusetts	New Bedford, Massachusetts	Raleigh, North Carolina	Philadelphia, Pennsylvania	Providence, Rhode Island	Lubbock, Texas
	Martin J. Lydon, President	John E. Foster, President	Malcolm E. Campbell, Dean	Bertrand W. Hayward, President	William D. Fales, Dean	R. K. Flege, Head
	1895	1895	1899	1884	1903	1925
c.	Commonwealth of Massachusetts	Commonwealth of Massachusetts	State of North Carolina North Carolina Textile Foundation	Industry—privately owned and supported	Private institution	State of Texas
	509	133 (650 Evening School)	459	331 (300 Evening School)	166 (300 Evening School)	28
g	In addition to the Lowell Campus, facilities of Massachusetts Institute of Technology also are available	The Institute has 110,000 sq ft.	Nelson Textile Building 122,000 sq ft, 4-story	90,000 sq ft Main Lab. Bldg. Hesslein Library 15,000 Administrative Offices Bldg. System	Metcalf Memorial Bldg., 9,720 sq ft—Brown U.—Co-op Plan makes facilities of both Institutions available	The Textile Eng. Building has 25000 sq ft for class rooms and laboratories
	Can process all fibers by all commercial systems from raw stock to finished fabric	Yarn, fabric, and finishing equipment required to operate to capacity the 85 looms available in the weaving dept.	Cotton, synthetics, and wool spinning on cotton, woolen and American worsted systems, warp preparation and weaving, physical testing, and research	Cotton, wool, worsted spinning, weaving, knitting	Wool, worsted, cotton, and synthetic yarn manufacture, weaving	Cotton, wool and synthetics, spinning, weaving, knitting
	Dyeing, bleaching, finishing, microbiology, testing			Dyeing, bleaching, finishing all chemical	Dyeing, bleaching, finishing	Finishing, bleaching and dyeing
l	Testing, textile physics, research		Bleaching, dyeing, finishing, chemical testing and research 4,000-vol. Burlington Mills library	Testing, research, physical sciences, spectroscopy, microscopy	Testing, research, physical sciences, spectroscopy, microscopy	Machine shop testing
le l- y,	Graduate approved secondary school, 2 years algebra, 1 geometry, 1 chemistry or physics	Degree: High School graduate 15 credits (5 English, 1 algebra, 1 geometry, 1 U. S. history)		Graduate of approved high school Math, science, English required Recommendation and personal interviews	High school graduate or equivalent. Math, science, required Entrance exam—personal interviews	Graduate of state accredited high schools Math, chemistry, engineering and humanities
	Note—4-year courses leading to B.S. Degrees in electronic, leather and paper engineering also available	Note: 3 year diploma course in industrial electronics and 4 year degree course in machine design also available.				
	B.S. in Textile Engineering 4 years Textile Engineering General Manufacturing	B.S. in Textile Engineering 4 years Textile Engineering, Fabric Manufacturing, Converting, Testing, Selling, Factoring	B.S. in Textile Technology (7 fourth year options) 4 years Management, Production, Quality Control, Research, Sales	B.S. in Textile Engineering 4 years—majors in knitting and weaving Production, Research, Quality Control, Sales Management Potential	B.S. in Textile Manufacturing 4 years Junior Executive, Textile Management, Production	B.S. in Textile Engineering 4 years Textile Engineering
	B.S. in Textile Manufacture 4 years Cotton, wool, synthetic manufacturing, textile designers, sales managers	B.S. in Textile Chemistry 4 years Textile Chemistry, Dyeing, Finishing	B.S. in Textile Chemistry 4 years Management, Production, Quality Control, Research, Sales	B.S. in Chemistry and Dyeing 4 years B.S. in T.E. with emphasis on chemistry and dyeing	B.S. in Textile Coloring and Chemistry 4 years Textile Chemists, Dyers, Finishers	B.S. and B.A. in Textile Engineering 5 years Textile Engineering
rk	B.S. in Textile Chemistry 4 years Bleaching, scouring, dyeing, printing, finishing	B.S. in Textile Design and Fashion 4 years Fashion or Textile Designers	M.S. in Textile Technology 1 to 2 years Management, Production, Quality Control, Research, Sales	Diploma in Textile Technology 3 years As above emphasis on production	B.F.A. in Textile Design 4 years Woven or Print Cloth Designers	
rk	M.S. in Textile Engineering 1 or 2 years Textile Engineering, Manufacture or Research	Diplomas in Gen. Textile Mfg., Textile Designing, Chemistry, Dyeing, Finishing, and Knitting 3 years As subject named	M.S. in Textile Chemistry 1 to 2 years Management, Production, Quality Control, Research, Sales	Certificates—Various Subjects (Evening) 6 years Upgrading in Industry	Certificates—Various Subjects (Evening) Various lengths of time Upgrading in Industry	
	M.S. in Textile Chemistry 1 or 2 years Industrial or research positions in textile chemistry	Certificates in Textile Technology (women) drafting, machine shop drafting 2 years Technology: Lab Work, Designing, Buying, Education, Consumer Relations				
	U.S. Air Force R.O.T.C. Sports Fraternities Honorary Societies Newspaper Radio station	Sports 3 Fraternities, 1 Sorority	Army and Air Force R.O.T.C., all Intercollegiate and Intramural Athletics, Glee Club, Band, Concert Orchestra, 6 Textile Societies, Professional and Honorary Societies, 17 Social Fraternities, College Union, Textile Student Magazine, College Newspaper, Radio and TV Stations	Athletics, Varsity Club Fraternities 3—One Sorority Clubs Student Council Band Textile Fellowship A.A.T.C.C.	Dramatics Publications Clubs Athletics Professional Societies A.A.T.C.C. Tex Club	Athletics Artist Course Series
	Smith Hall, Eames Hall, Residence Hall (110 members)	None	Dormitories, Fraternity Houses, Facilities for Married Students	Dormitories Under Construction—Complete in 1955	6 Dormitories for Female Students Only	8 Dormitories (total accommodations—2800)
ar ar	Massachusetts Resident Tuition: $100 per year Non-Resident Tuition: $250 per year Foreign Students: $500 per year	Massachusetts Resident Tuition: $150 per year Non-Resident Tuition: $250 per year Foreign students: $500 per year	North Carolina Resident Tuition: $150 per year Non-Resident Tuition: $360 per year	U. S. Citizen Tuition: $450 per year Foreign Students: $550 per year Fees: $85 per year	$550 per Year all	$25 per Semester Residents of Texas
ri- of	Full time placement service for students and graduates	Prof. J. L. Giblin, Director of Placement Office	Textile Placement Bureau	Placement Office	Placement Office	Placement Service
Ga. act	Evening School L. T. I. Research Foundation Summer Industrial Workshop Library Corp. Membership for Industry	Evening School	Separate Textile Research Dept. for Fundamental and Applied Research	Pilot Plant for Research Management and Supervisory Seminars, Meeting place for Tech. and Prof. Groups, Evening Schools	Evening School Pilot Plant and Consulting Service	Cotton Research Committee of Texas, Fiber and Process Testing Service for Growers and Processors

mplete textile education includes
ring management and style. Each
ts 'Major' around any one of the
od textile graduate . . . He may
e other two fields. In any event,
f industry which in my mind is a
."—
Dir.
nces,

Textile Industries *presents* AMERICA'S

wh

ALABAMA POLYTECHNIC INSTITUTE; SCHOOL OF TEXTILE TECHNOLOGY	BRADFORD DURFEE TECHNICAL INSTITUTE	CLEMSON AGRICULTURAL COLLEGE, SCHOOL OF TEXTILES	GEORGIA INSTITUTE OF TECHNOLOGY	LOWELL TECHNOLOGICAL INSTITUTE	NEW BEDFORD TEXTILES AND
Auburn, Alabama	Fall River, Massachusetts	Clemson, South Carolina	Atlanta, Georgia	Lowell, Massachusetts	New Bedford, Mass
Cleveland L. Adams, Head	Leslie B. Coombs, President	Hugh M. Brown, Dean	Herman A. Dickert, Director	Martin J. Lydon, President	John E. Foster, P
1930	1904		1899	1895	1895
State of Alabama, Alabama Textile Education Foundation	Commonwealth of Massachusetts	State of South Carolina J. E. Sirrine Foundation	Textile Education Foundation, Inc.	Commonwealth of Massachusetts	Commonwealth of M
147	100 (600 Evening School)	505	257	509	133 (650 Evening
The School is one of 56 major buildings on campus. It teaches textile subjects only; other courses integrated in other college departments	The Textile Building is one of five making up the Institute	College Campus—1,645 acres. Sirrine Hall (Textile School) has 150,000 sq ft.	Harrison Hightower Engineering Building	In addition to the Lowell Campus, facilities of Massachusetts Institute of Technology also are available	The Institute has
Weaving, cotton spinning, synthetics	Cotton spinning, warping and slashing, weaving	Throwing weaving, cotton, wool and worsted spinning	Cotton, wool, synthetics, knitting	Can process all fibers by all commercial systems from raw stock to finished fabric	
Dyeing, bleaching, finishing, testing	Dyeing, finishing	Dyeing, finishing	Dyeing, finishing, testing	Dyeing, bleaching, finishing, microbiology, testing	Yarn, fabric, equipment req to capacity th able in the w
Physical testing, research	Microscope, testing, research	Fiber research lab. Physical testing, evenness lab	Testing, physical and chemical research	Testing, textile physics, research	
Graduate or accredited high school	High School graduate with 15 credits: (3 math, 1 science, 4 Eng., 1 history required)	High school graduate with 16 units (3 English, 1½ algebra, 1 plane geometry suggested)	High school graduate with suitable record: 15 units (3 English, 2 algebra, 1 plane geometry, 1 history, 2 science, 6 optional)	Graduate approved secondary school, 2 years algebra, 1 geometry, 1 chemistry or physics	Degree: High Sch credits (5 Englis geometry, 1 U. S.
				Note—4-year courses leading to B.S. Degrees in electronic, leather and paper engineering also available	Note: 3 year diplo dustrial electronic gree course in ma available.
B.S. in Textile Chemistry 12 quarters R: Textile Chemists, Dyers	B.S. in Textile Engineering 4 years General application	B.S. in Textile Engineering 4 years Production, research and development work	Bachelor of Textile Engineering 4 years or 5 year co-op plan Textile Engineering	B.S. in Textile Engineering 4 years Textile Engineering General Manufacturing	B.S. in Textile En 4 years Textile Engineerin facturing, Conve Selling, Factoring
B.S. in Textile Engineering 12 quarters R: General Adaptation to Industry	B.S. in Textile Manufacturing 4 years General application with emphasis on production	B.S. in Textile Manufacturing 4 years Production and management work	B.S. in Textiles 4 years or 5 year co-op plan Textile Manufacturing, Textile Chemistry and Dyeing	B.S. in Textile Manufacture 4 years Cotton, wool, synthetic manufacturing, textile designers, sales managers	B.S. in Textile Ch 4 years Textile Chemistry, ing
B.S. in Textile Management 12 Quarters Production and Operational Management	B.S. in Dyeing and Finishing 4 years Dyers and Finishers	B.S. in Textile Chemistry (dyeing and finishing) 4 years Various positions in chemical phase of industry	M.S. in Textile Engineering 1 to 2 years Research and development work	B.S. in Textile Chemistry 4 years Bleaching, scouring, dyeing, printing, finishing	B.S. in Textile De 4 years Fashion or Textile
Textile Manufacture (Certificate) 12 quarters co-op R: Manufacturing Supervision	B.S. in Textile Styling 4 years Fabric Designers	B.S. in Knitting Development 4 years Yarn manufacture, all phases of knitting industry	M.S. in Textiles 1 to 2 years Research and development work	M.S. in Textile Engineering 1 or 2 years Textile Engineering, Manufacture or Research	Diplomas in Ge Textile Designing, ing, Finishing, an 3 years As subject name
	B.S. in Art and Product Development 4 years R: Fabric Stylist Fashion Illustration	M.S. Textile Chemistry Various places in chemical phase of industry		M.S. in Textile Chemistry 1 or 2 years Industrial or research positions in textile chemistry	Certificates in Te (women) draftin drafting 2 years Technology: Lab Buying, Educatio lations
General campus activities and fraternities; Phi Psi, Tau Beta Pi	Class organized social functions sports Societies: Engineering, ACS, A.A.T.C.C. Fraternities: Phi Psi, Epsilon Phi Pi Sorority: Kappa Sigma Phi Clubs: Cosmopolitan, Varsity	R.O.T.C. 5 honorary societies Clubs Engineering Societies Y.M.C.A. Musical activities All collegiate athletics	Professional Fraternities Professional Societies Honor Societies Athletics	U.S. Air Force R.O.T.C. Sports Fraternities Honorary Societies Newspaper Radio station	Sports 3 Fraternities, 1
Men: Magnolia Hall, Auburn Hall, Alumni Hall (total 5000 accommodations) Women: Girls' Quadrangle (1200 accommodations)	None	Cadet Barracks, Y.M.C.A., 398 houses for veteran students with families	Dormitories, Fraternity Houses	Smith Hall, Eames Hall, Residence Hall (110 members)	None
Free to Alabama residents, certain fees assessed Non-resident tuition: $45.00 per quarter plus fees.	Massachusetts Resident Tuition: $150 per year Non-Resident Tuition: $250 per year Foreign students: $500 per year	South Carolina Resident Tuition: $100 per year Non-Resident Tuition: $300 per year Note: Total cost to attend: $900-$1000 per year	Georgia Resident Tuition: $216 per year Non-Resident Tuition: $600 per year	Massachusetts Resident Tuition: $100 per year Non-Resident Tuition: $250 per year Foreign Students: $500 per year	Massachusetts Re Non-Resident Tu Foreign students
Student Guidance Service	Prof. W. E. Marston, Director of Year Round Service	Dean H. M. Brown in charge of placement bureau	Central Ga. Tech Placement Division through Associated Deans of Students	Full time placement service for students and graduates	Prof. J. L. Gil Placement Office
Applied and Fundamental Research	Staff available for consultation Evening School Summer School	U. S. Dept. of Agriculture cotton fiber and spinning laboratories, ACMI Div. of Technical Service, Research	Testing, Research, Advisory, Ga. Tech Engineering STA (contract research), Gen. Consulting, Q.M. Training Program	Evening School L. T. I. Research Foundation Summer Industrial Workshop Library Corp. Membership for Industry	Evening School

S TEXTILE SCHOOLS

which are members of the National Council for Textile Education

This chart was prepared by the Philadelphia Textile Institute for the members of the National Council for Textile Education, from data supplied by the member schools. Only those schools which are members of the NCTE are included.

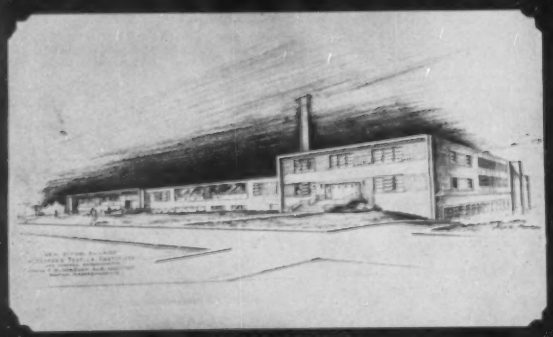
In addition to the major textile schools listed in this chart, graduate work in textiles is being carried on at the Textile Research Institute, Princeton, N. J., and the Institute of Textile Technology, Charlottesville, Va.

Obviously, all schools or colleges which offer courses in Textiles or which give vocational training, are not included in this listing.

D INSTITUTE OF D TECHNOLOGY	NORTH CAROLINA STATE COLLEGE, SCHOOL OF TEXTILES	PHILADELPHIA TEXTILE INSTITUTE	RHODE ISLAND SCHOOL OF DESIGN	TEXAS TECHNOLOGICAL COLLEGE	
Massachusetts	Raleigh, North Carolina	Philadelphia, Pennsylvania	Providence, Rhode Island	Lubbock, Texas	LOCATION
President	Malcolm E. Campbell, Dean	Bertrand W. Hayward, President	William D. Fales, Dean	R. K. Flege, Head	MAJOR OFFICER
	1899	1884	1903	1925	FOUNDED (Textile Dept. only)
of Massachusetts	State of North Carolina North Carolina Textile Foundation	Industry—privately owned and supported	Private institution	State of Texas	SPONSORSHIP
ing School)	459	331 (300 Evening School)	166 (300 Evening School)	28	1954 ENROLLMENT (Textile Dept. only)
as 110,000 sq ft.	Nelson Textile Building 122,000 sq ft, 4-story	90,000 sq ft Main Lab. Bldg. Hesslein Library 15,000 Administrative Offices Bldg. System	Metcalf Memorial Bldg., 9,720 sq ft—Brown U.—Co-op Plan makes facilities of both Institutions available	The Textile Eng. Building has 25000 sq ft for class rooms and laboratories	TEXTILE FACILITIES
ric, and finishing required to operate the 85 looms available weaving dept.	Cotton, synthetics, and wool spinning on cotton, woolen and American worsted systems, warp preparation and weaving, physical testing, and research	Cotton, wool, worsted spinning, weaving, knitting	Wool, worsted, cotton, and synthetic yarn manufacture, weaving	Cotton, wool and synthetics, spinning, weaving, knitting	MANUFACTURING LABORATORIES
		Dyeing, bleaching, finishing all chemical	Dyeing, bleaching, finishing	Finishing, bleaching and dyeing	CHEMICAL LABORATORIES
	Bleaching, dyeing, finishing, chemical testing and research 4,000-vol. Burlington Mills library	Testing, research, physical sciences, spectroscopy, microscopy	Testing, research, physical sciences, spectroscopy, microscopy	Machine shop testing	OTHER
School graduate 15 glish, 1 algebra, 1 S. history)		Graduate of approved high school Math, science, English required Recommendation and personal interviews	High school graduate or equivalent. Math, science, required Entrance exam—personal interviews	Graduate of state accredited high schools Math, chemistry, engineering and humanities	ADMISSION REQUIREMENTS
iploma course in inics and 4 year demachine design also					MAJOR TEXTILE CURRICULA
Engineering	B.S. in Textile Technology (7 fourth year options) 4 years Management, Production, Quality Control, Research, Sales	B.S. in Textile Engineering 4 years—majors in knitting and weaving Production, Research, Quality Control, Sales Management Potential	B.S. in Textile Manufacturing 4 years Junior Executive, Textile Management, Production	B.S. in Textile Engineering 4 years Textile Engineering	DEGREE OR SUBJECT: LENGTH: PREPARATION FOR: I
ring, Fabric Manuverting, Testing, ng					
Chemistry	B.S. in Textile Chemistry 4 years Management, Production, Quality Control, Research, Sales	B.S. in Chemistry and Dyeing 4 years B.S. in T.E. with emphasis on chemistry and dyeing	B.S. in Textile Coloring and Chemistry 4 years Textile Chemists, Dyers, Finishers	B.S. and B.A. in Textile Engineering 5 years Textile Engineering	DEGREE OR SUBJECT: LENGTH: PREPARATION FOR: II
ry, Dyeing, Finish-					
Design and Fashion	M.S. in Textile Technology 1 to 2 years Management, Production, Quality Control, Research, Sales	Diploma in Textile Technology 3 years As above emphasis on production	B.F.A. in Textile Design 4 years Woven or Print Cloth Designers		DEGREE OR SUBJECT: LENGTH: PREPARATION FOR: III
ile Designers					
Gen. Textile Mfg., ng, Chemistry, Dye- and Knitting	M.S. in Textile Chemistry 1 to 2 years Management, Production, Quality Control, Research, Sales	Certificates—Various Subjects (Evening) 6 years Upgrading in Industry	Certificates—Various Subjects (Evening) Various lengths of time Upgrading in Industry		DEGREE OR SUBJECT: LENGTH: PREPARATION FOR: IV
amed					
Textile Technology ting, machine shop					DEGREE OR SUBJECT: LENGTH: PREPARATION FOR: V
ab Work, Designing, tion, Consumer Re-					
1 Sorority	Army and Air Force R.O.T.C., all Intercollegiate and Intramural Athletics, Glee Club, Band, Concert Orchestra, 6 Textile Societies, Professional and Honorary Societies, 17 Social Fraternities, College Union, Textile Student Magazine, College Newspaper, Radio and TV Stations	Athletics, Varsity Club Fraternities 3—One Sorority Clubs Student Council Band Textile Fellowship A.A.T.C.C.	Dramatics Publications Clubs Athletics Professional Societies A.A.T.C.C. Tex Club	Athletics Artist Course Series	EXTRA CURRICULAR ACTIVITIES
	Dormitories, Fraternity Houses, Facilities for Married Students	Dormitories Under Construction—Complete in 1955	6 Dormitories for Female Students Only	8 Dormitories (total accommodations—2800)	STUDENT HOUSING
Resident Tuition: $150 per year Tuition: $250 per year nts: $500 per year	North Carolina Resident Tuition: $150 per year Non-Resident Tuition: $360 per year	U. S. Citizen Tuition: $450 per year Foreign Students: $550 per year Fees: $85 per year	$550 per Year all	$25 per Semester Residents of Texas	TUITION
Giblin, Director of ice	Textile Placement Bureau	Placement Office	Placement Office	Placement Service	PLACEMENT FACILITIES
l	Separate Textile Research Dept. for Fundamental and Applied Research	Pilot Plant for Research Management and Supervisory Seminars, Meeting place for Tech. and Prof. Groups, Evening Schools	Evening School Pilot Plant and Consulting Service	Cotton Research Committee of Texas, Fiber and Process Testing Service for Growers and Processors	INDUSTRIAL SERVICES

Rhode Island

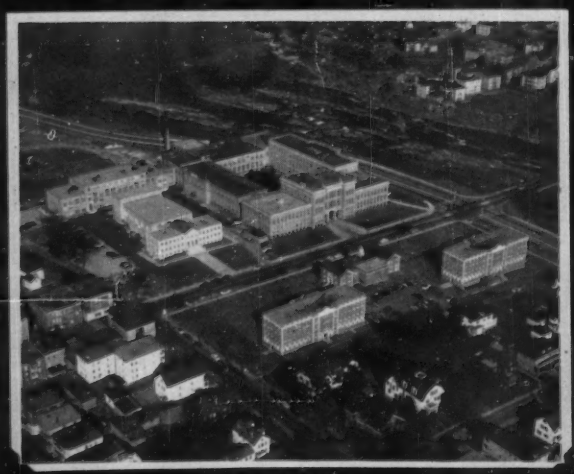
Clemson



New Bedford

AME
TEXTILE

Auburn



Lowell

Reprints of this 6-page
the basis of one per read

N. C. State

P. I. I.

ERICA'S
E SCHOOLS

Ga. Tech

Bradford - Durfee

Texas Tech

folder will be furnished on
er so long as the supply lasts.

P. I. I.

Ga. Tech

Texas Tech

Wrap a rubber hose around your whiprolls and

you can get these fancy effects

An Exclusive Contribution

CORRECT LOOM adjustments and settings are absolutely essential in the production of staple and most decorative fabrics. There are, however, many unusual effects that can be given to decorative fabrics by making use of various abnormal settings of the loom. One of the most interesting of these can be obtained by the use of the spiral whiproll described below.

Take a length of ordinary rubber hose, about ⅜″ or ½″ in diameter, and wrap this around the whiproll in a spiral manner as shown in top sketch [p. 128]. About three complete turns around the whiproll in the width of the warp should be sufficient. For experimental and temporary use each end of the hose can be fastened to the whiproll with friction tape. For a more permanent fixture a metal collar for the whiproll, as shown, should be made in the machine shop. This collar is fastened to the whiproll with set screws.

A heavy wire should be inserted through the length of rubber hose to help it retain its shape and position on the whiproll. The ends of this wire are inserted in the holes in the collar. For some fabrics and constructions it may be found best to wrap two lengths of hose around the whiproll, for which additional holes are provided in the collar. *(Cont'd next page)*

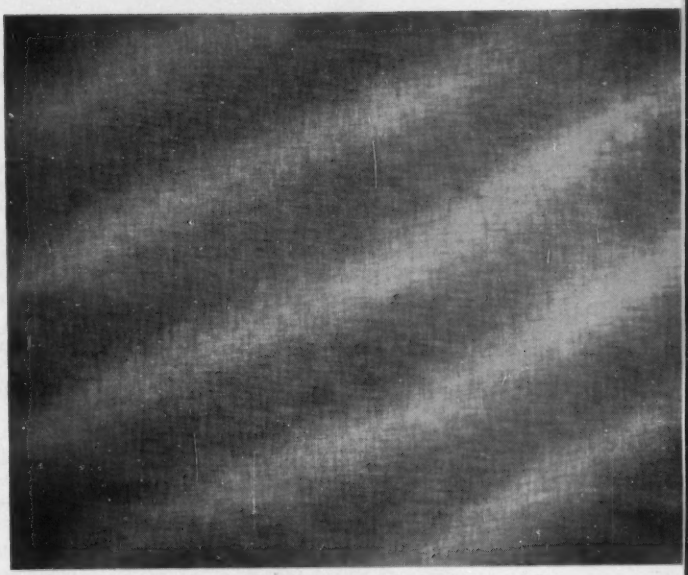


FIG. 1. Light and shadow effect in a chambray-type fabric. A colored warp and a white filling are used. Angle of the shadow effect is determined by number of turns of the hose around the whiproll.

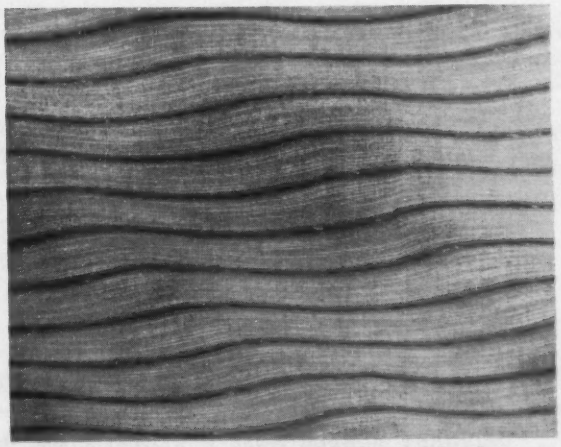


FIG. 2. Box loom fabric woven with a solid red warp and filling bands of red, white, and black.

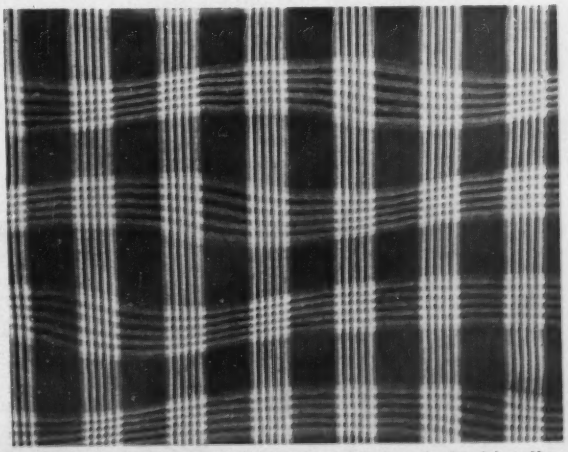


FIG. 3. Gingham plaid woven with a spiral whiproll, causing distortion of filling bands.

1/3 Rayon-2/3 Cotton Blend Performs Well in Work Clothing, Study in United Kingdom Shows

Results of an extensive study made in the United Kingdom on blends of rayon staple with cotton in woven fabrics show that:

(1) It is possible to spin satisfactorily on the conventional cotton system blends of rayon with cotton;

(2) Fabrics produced have an improved and lustrous appearance, more even yarns, and reduced cost on processing;

(3) One-third rayon and two-thirds cotton blends, in all cases, proved at least equal and in some instances superior in performance to corresponding all-cotton fabrics.

Two constructions used for work clothes were chosen for the experiments—denim and drill. The denim trial was specific and more narrow in its approach—purpose was to determine the effects of different blends and staple lengths on the resistance to abrasion compared with the 100% cotton standard. The drill trial was so extensive that all possible end uses and therefore all possible types of wear and laundering were covered. Standards in both the denim and drill trials were 100% cotton fabrics of identical constructions.

The viscose rayon staple used was "Fibro," a product of Courtaulds, Ltd.

Denim Test. For the denim trial, seven identical fabrics were produced with the exception of fiber content. One was the all-cotton standard, three were blends using ⅓, ½, and 2/3 rayon staple in 1½ denier, and three were similar blends using 3 denier rayon staple. No difficulties were encountered in compression shrinking by such methods as the Sanforized process on either the standard all cotton fabric or the rayon/cotton blends.

These fabrics were made into nurses' uniforms identical in design and covering a range of sizes. The garments were all issued to nurses working in one hospital so that over a period of three years they would be worn under similar conditions and all the garments would have, as near as it was possible to obtain, similar conditions of wear and laundering.

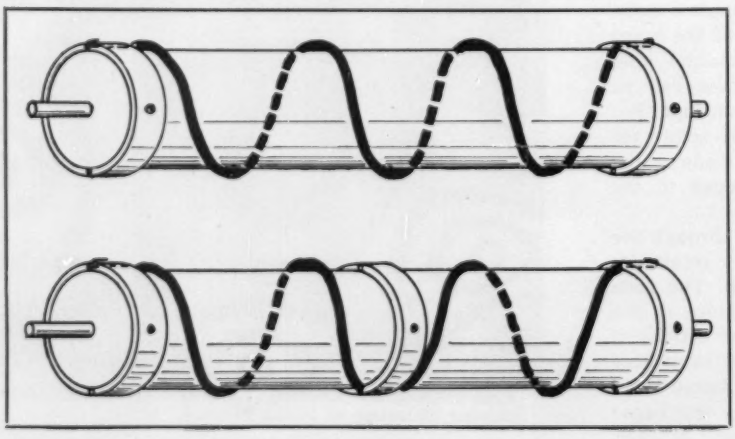
At the end of three years, the trial was concluded and an analysis was made of the resistance to abrasion.

The damage to the dresses is mostly abrasion, occurring on the shoulders where the stiff collar rubs against the dress; at the pockets where such articles as pencils, thermometer, scissors and other odd articles may be carried; and at the waist where the belt or apron has rubbed. Damage has occurred under the arms where perspiration has rotted the seaming cotton, also at the sleeve and other seams which have become unsewn. Tearing in some instances has occurred. Abrasion of the bottom hem fold is not very frequent, but seems to occur sooner with the 100% cotton than with the rayon staple/cotton blends.

Without exception, the 100% cotton garments were the worst, while in every case the rayon/cotton blends were better and there was every indication that the 50/50 blend and

The whiproll will turn while the warp passes over it and alternately increase and decrease the tension on the warp ends in a uniform manner. This will have the effect of distorting the filling, causing one section of the cloth to have considerably more picks per inch than the adjoining sections. Because of the spiral formation of the hose on the whiproll, the warp take-up will equalize itself during each revolution of the whiproll so that no unequal warp take-up need be anticipated.

ORDINARY RUBBER HOSE is wrapped around the whiproll to secure various unusual effects. The hose may be fastened at the ends with friction tape, or may be secured with collars, as shown. In the top sketch, one length of hose is used; in the bottom sketch two lengths of hose, spiraling in opposite directions, are used. The second arrangement requires an additional collar in the center of the whiproll.



Some experimenting in the size of rubber hose to use is necessary; the correct size is governed by the diameter of the whiproll and by the number of wraps around the whiproll necessary to achieve the best results in the fabric being woven.

One interesting and novel effect in a chambray type of cloth is illustrated in Fig. 1. This fabric has a colored warp and white filling, and the spiral whiproll used gives a diagonal effect of light and shadow across the width of the

the 2/3 rayon-1/3 cotton were better than the 1/3 rayon-2/3 cotton. It was not possible to differentiate between the 50/50 blend and the 2/3 rayon-1/3 cotton, or to say whether the 1½ denier or the 3 denier was better.

It is interesting to note how well most of the rayon/cotton blend fabrics look after three years and some 30-35 launderings. Also, there is no loss in color. Shrinkage was negligible throughout.

Tensile strength tests on the original rayon/cotton blend fabrics were generally of the same order as the 100% cotton.

Abrasion tests on the 1½ denier blends quite convincingly show that blends are likely to wear better than pure cotton. The abrasion tests on the 3 denier blends are not yet complete, but there is every indication that these follow a similar form to the 1½ denier.

Test on Drill Fabrics. In the second series of trials, that is on drill fabrics, arrangements were made with municipal government groups such as the general post office, prison authorities, hospitals, fire brigades, large organizations, and internally within Courtaulds, Ltd., in order to cover as wide a range of uses and different types of abrasion as possible.

Blend fabric contained one-third 1½ denier 1¼" rayon staple and two-thirds 1" American cotton. Standard was all cotton fabric. Constructions were identical.

Laboratory coats, cooks' clothing (consisting of jackets, trousers, aprons, and caps), prisoner's suits (consisting of jackets and trousers of the bib-and-brace type), and overalls, were made from these fabrics and tested for periods ranging from one to three years. There was no significant difference in the performance of the two fabrics except as follows:

(1) Examination of tensile strength of the undamaged portions of four laboratory coats (two blend and two all-cotton) after being worn continuously for twelve months and laundered 20 times showed that the rayon staple/cotton blend material was for some reason 35% stronger than the all-cotton fabric.

(2) Examination of four more laboratory coats worn under similar conditions to those mentioned above but given 40 launderings still had good color after two and one-half years, but the blends were definitely whiter than the all-cotton.

(3) At the termination of an extensive trial, measurements of prisoner's suits after laundering tended to show that the blend was more stable than cotton.

(4) Firemen who wore overalls reported that garments made of blended fabric did not shrink as much as the all-cotton fabric.

Abstract of paper entitled "Blends of Viscose Rayon Staple with Cotton for Work Clothes" jointly prepared by J. Boyd and C. P. Tattersfield and presented by Mr. Boyd, a textile technologist in the use-development organization of Courtaulds, Ltd., England, before the American Association for Textile Technology, Inc.

Do you like to take pictures?

You do? Then be sure to read the announcement of TI's photo contest which begins this month. It appears on page 195 of this issue.

Your entry may provide those extra "bucks" you'd like to have for your vacation this summer.

goods. The number of spiral turns of the hose on the whiproll will determine the angle of this shadow effect. The more turns around the whiproll in the width of the warp the steeper will be the angle of the diagonal shadow. The most desirable angle can best be determined by experimenting on the loom and the fabric. The direction of the diagonal shadow, whether from lower left to upper right or vice versa, can be controlled by the direction of the spiral turns on the whiproll.

If a V formation is desired it can be obtained by reversing the direction of the spiral wrapping of the hose in the center of the whiproll, as shown in bottom half of sketch. This reversal of direction can be obtained by fastening the hose to the center of the whiproll with friction tape or an additional collar.

The spiral whiproll will give an entirely different effect to box loom fabrics. Filling bars, instead of running straight across the width of the goods, will be distorted into wavy lines, thus giving an entirely different appearance to the filling stripes. Fig. 2 shows a fabric woven in this manner on a solid red warp with filling bands of white, red, and black, which produce the wavy effect.

Fig. 3 shows the same effect in a gingham plaid. Here the warp stripes remain perpendicular but the filling stripes, being distorted by the action of the spiral whiproll, give a very unusual and distinctive appearance to the design.

Many other interesting variations can be made with the spiral whiproll. For instance, on a fabric woven with two loom beams, one warp can pass over a regular whiproll and the other warp over a spiral whiproll. This will produce a pattern with a diagonal shadow background, but with the figures from the straight whiproll warp falling into their normal distribution.

Another variation on a fabric made with one warp utilizes two spiral whirolls, one wound with the rubber hose in the opposite direction to the other. The warp is divided into two sections, possibly put on two loom beams, each section to be about three or four inches wide, and one section passing over one whiproll and the other section over the other whiproll. The effect obtained, on a solid colored warp with white filling, would be that of shadow blocks staggered in a checkerboard effect.

Many other odd effects can be obtained, their variety being limited only by the ingenuity of the designer and the amount of experimenting done.

CONTRIBUTOR NO. 8756

Mr. Spinner—Do you creel single or double? Here are the effects of

Single versus

By Howard L. Loveless
*School of Textiles, Clemson College**

EXCLUSIVE

THERE is divided opinion in the textile industry concerning the best creeling for spinning—single or double. Many have reasons for spinning one way or the other but there is little published to substantiate either method.

This is a report of a project undertaken under the sponsorship of the Sirrine Textile Foundation to study the relation of single-creel spinning using low draft and double creel using high draft.

Three different ways to look at creeling on a spinning frame in terms of draft and doubling are: (1) Keep the draft constant and feed in twice as heavy a roving when single creeling, (2) Keep the roving size the same and use twice the draft when double creeled, and (3) Make changes in both roving size and draft. In this work, the roving was constant and the draft only was varied.

Three fiber stocks were spun—carded cotton, combed cotton, and a rayon-nylon blend. All were spun on a suitable Whitin Casablancas drafting system into a series of yarns of different sizes and twists.

In each case the frame was set up to spin double creel. After the desired yardage was run, one end of roving was broken out and a gear with twice as many teeth put on the frame, cutting the draft in half, and then the frame was run again.

Yarns produced were then checked for strength (single end and skein), appearance, and evenness.

Results. In Table II the details of the three stocks, yarn numbers, twists, drafts, and strength results are given. It should be noted that the double-creel draft is twice the single-creel, and also that the yarn number varies slightly with the different TMs because of varying contraction.

Yarn strength—both single end and skein—shows a definite increase in favor of single-creel low draft. Another point of interest is that the increase is much more for the higher twists, indicating that for warp yarn there is more advantage to single creeling. This is shown graphically in Fig. 1, warp twist, and Fig. 2, filling twist, for the carded yarns. The curves for combed yarns would be very similar.

The rayon-nylon blend also shows advantage to single creeling in most cases, with the higher twist giving the most pronounced difference. Another interesting point about this blend is the increase at higher drafts. At low draft there appears to be little difference, but as the draft ranges are increased, the advantages of single creel over double creel increase. This was not the case with cotton. Fig. 3 illustrates the warp twist strength differences in this blend.

Appearance boards wound from some of the yarns on these tests showed no detectable difference between single creel and double. Also, per cent mean linear unevenness readings taken with a Uster tester integrating over a

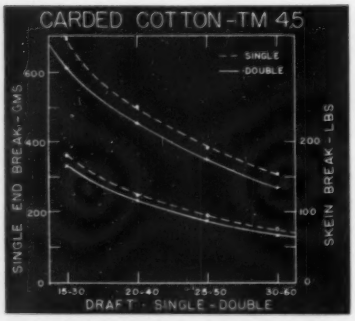


FIG. 1. Effect of single versus double creeling on the strength of a series of carded cotton yarns spun with a twist multiplier of 4.5.

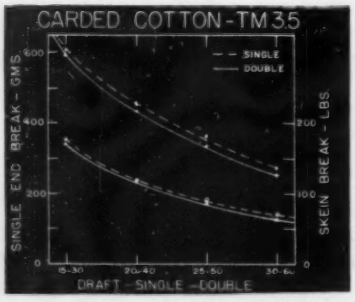


FIG. 2. Effect of single versus double creeling on the strength of a series of carded cotton yarns spun with a twist multiplier of 3.5.

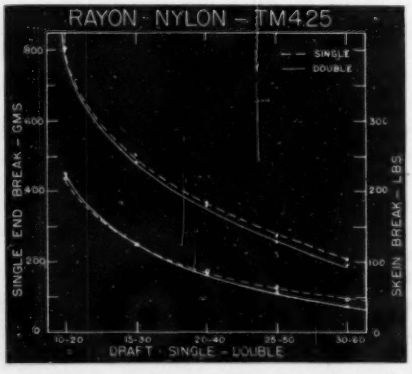


FIG. 3. Effect of single versus double creeling on the strength of a series of yarns spun from a rayon-nylon blend with a twist multiplier of 4.25.

*Present address: School of Textile Technology, Alabama Polytechnic Institute, Auburn, Alabama.

Double Roving

2½-minute period showed no significant differences between the two types of creeling. However, the variation, which would be short term, did show up as per cent nonuniformity in about the same proportion as did strength when run on a Brush tester set at an "effective sensitive length" of 1 foot. Time and availability of the instrument did not permit the running of all yarns in this way; however, Table I gives some of the results, which show an advantage for single creel.

Conclusions. The savings in manufacturing cost would be small, although there would be fewer bobbins, less stock in process, and easier cleaning, by cutting draft in half and using the same size roving single creeled. However, the better quality, especially at higher twist and drafts, would be significant.

In short, some mills now double creeling might get better quality yarn by single creeling, using the same roving and cutting draft in half. The theory set forth is that low draft is of greater importance than doubling for producing quality yarns.

TABLE I. EFFECT OF SINGLE AND DOUBLE CREELING ON YARN UNIFORMITY

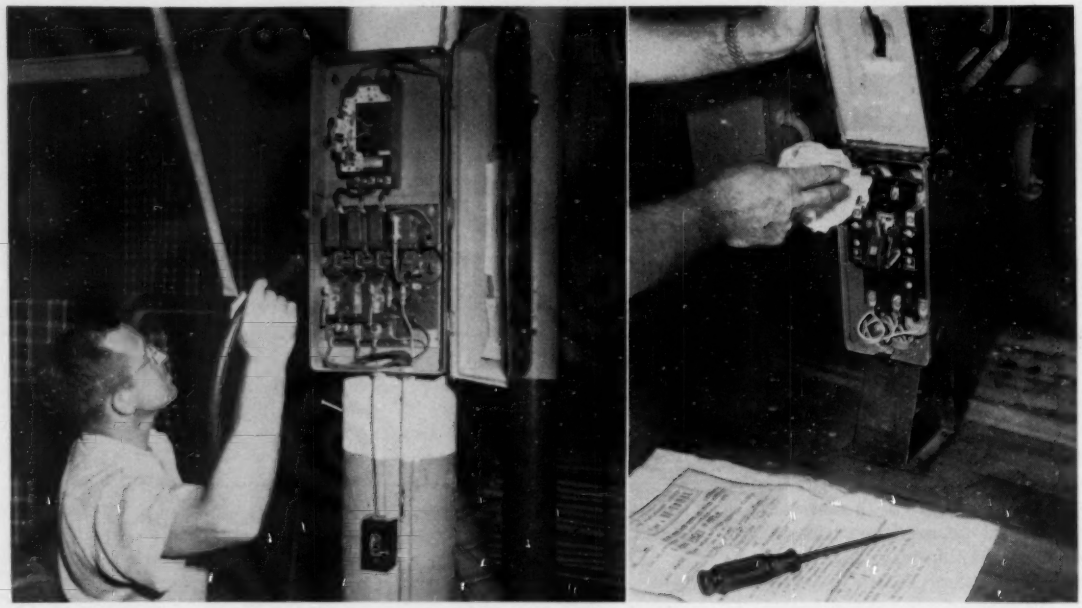
Stock	Yarn Number	Twist Mult.	Mechanical Draft		Nonuniformity*, %		
			Single Creel	Double Creel	Single Creel	Double Creel	Increase, %
Carded Cotton	13.8	4.50	15	30	46	50	8.0
Carded Cotton	23.4	4.50	25	50	57	67	14.9
Viscose-Nylon	23.4	4.25	25	50	47	54	13.0
Viscose-Nylon	28.2	4.25	30	60	53	62	14.5

*1-ft sensitive length

TABLE II. EFFECT OF SINGLE AND DOUBLE CREELING ON YARN STRENGTH

Stock	Yarn Number	Twist Mult.	Mechanical Draft		Single End Break Grams			Skein Break Pounds		
			Single Creel	Double Creel	Single Creel	Double Creel	% Increase	Single Creel	Double Creel	Corrected % Increase*
Carded Cotton M 1 1/16" 25% Irrigated 75% Rain Grown 1.00-Hank Roving	14.2	3.50	15	30	608	596	2.0	176	170	1.4
	13.8	4.50	15	30	696	611	13.9	181	167	6.9
	19.0	3.50	20	40	455	435	4.6	120	119	—0.2
	18.4	4.50	20	40	506	455	11.2	126	117	6.6
	24.0	3.50	25	50	367	336	9.2	92.5	88.5	1.9
	23.4	4.50	25	50	388	352	10.2	95.5	89.5	4.0
	29.3	3.50	30	60	275	254	8.3	71	67.5	2.3
	28.4	4.50	30	60	305	271	12.5	77	65.5	14.3
Combed Cotton Amsak 1.36" UHM 1.80-Hank Roving	25.0	3.00	15	30	582	558	4.3	159	159	—0.4
	24.3	4.00	15	30	612	534	14.6	162	141	14.0
	33.4	3.00	20	40	442	426	3.8	116	114	1.7
	32.5	4.00	20	40	443	393	12.7	113	100	13.0
	41.6	3.00	25	50	341	328	4.0	89.5	85	2.1
	40.2	4.00	25	50	347	308	12.7	87	79	8.2
	51.0	3.00	30	60	263	247	6.5	71.5	64	9.4
	49.8	4.00	30	60	277	241	14.9	67.5	60	12.1
Rayon-Nylon 50% 3-Den. 1½" Viscose 35% 1.5-Den 1½" Viscose 15% 3-Den. 1½" Nylon 0.97-Hank Roving	8.9	4.25	10	20	803	806	—0.4	220	226	—1.9
	14.0	3.25	15	30	506	535	—5.4	133	137	0.6
	13.6	4.25	15	30	504	491	2.6	126	125	1.5
	18.8	3.25	20	40	376	364	3.3	92	90.5	1.7
	18.2	4.25	20	40	369	361	2.2	87.5	84	5.3
	23.9	3.25	25	50	263	260	1.2	65.5	64	5.0
	23.4	4.25	25	50	277	259	6.9	63.5	59	8.5
	29.0	3.25	30	60	214	206	3.9	49.5	44	12.9
	28.2	4.25	30	60	208	192	8.3	47	40.5	16.0

*Corrected for slight variations in yarn number; i.e., strength was calculated on the basis of count-strength products.



CLEAN THEM WITH COMPRESSED AIR, like the electrician in the left photo is cleaning the cloth shearer starter, or vacuum and wipe with a dry cloth (right photo). Dust accumulations within the enclosure will decrease radiation of heat from the current-carrying parts, bind moving parts, and tend to cause flashover of live parts due to accumulation on insulator blocks.

IT PAYS to properly maintain switches and starters

THE MAINTENANCE of switches and starters never ceases to be a problem in the textile industry. The use of general purpose enclosures throughout the plants presents the problem of keeping them clean. The NEMA 1-A enclosure now being used is helping this situation to a great extent, but as long as we have a large percentage of general purpose enclosures, the cleaning problem will remain with us.

The problem of keeping switches and starters clean has not been solved but can be controlled to a certain extent by routine inspection and cleaning schedules.

Tips on Inspection and Cleaning. The photos and their captions on these two pages present several suggestions for cleaning, inspecting, and maintaining switches and starters in textile manufacturing plants. Other suggestions, not illustrated, follow:

Wear and friction in controls may be overcome by proper lubrication.

All overload protective devices that are incorporated in the controls should be tested for proper operation.

The Loose Connection Problem. Loose connections are a constant problem. Most of these cases can be attributed to the human element that is involved. Most of the difficulty experienced with the solderless joints is due to improper cleaning and tightening the joint when it is made. Some difficulty, however, is caused from expansion and contraction, due to constant heating and cooling or vibration.

The use of compression connectors and terminals has helped reduce the loose connection problem on the small conductors.

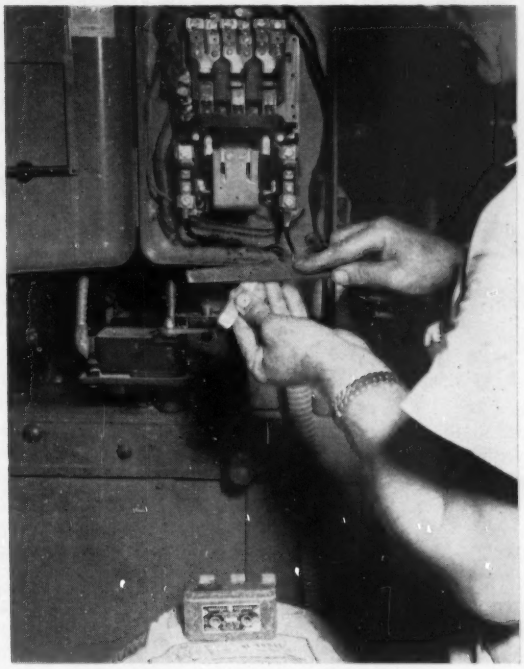
When soldered joints are used on large or small conductors, the lack of skill is usually the cause of a bad connection.

Loose connections in controls and control circuits are especially bad, as there is usually such low current that it will give intermittent trouble and will not heat the connection and make the trouble show up. A high resistance connection in some controls will cause spasmodic operation and is very hard to trace.

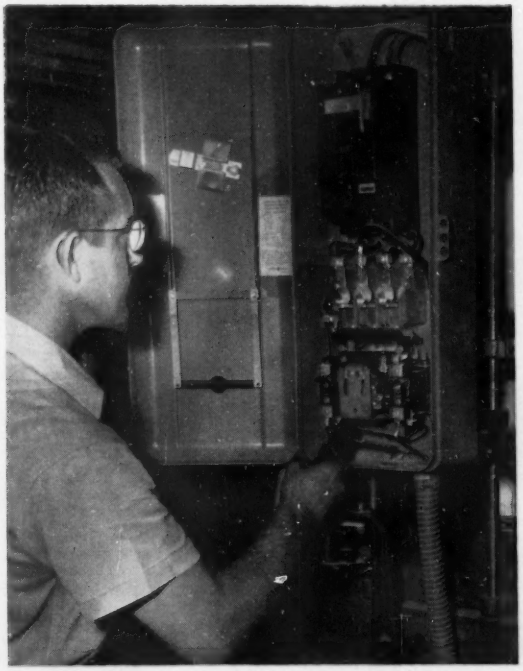
In general, a connection, or any work for that matter, is no better than the man who does the work. This is the key to most maintenance problems—properly trained electricians who take pride in their work.

From an address by K. A. Richardson of Bibb Mfg. Co. at the Textile Industry Conference on Electrical Problems and Equipment, held at Georgia Institute of Technology, Atlanta, Ga. Posing for the photos, which were made by a member of the TEXTILE INDUSTRIES editorial staff, was Paul Tankersley.

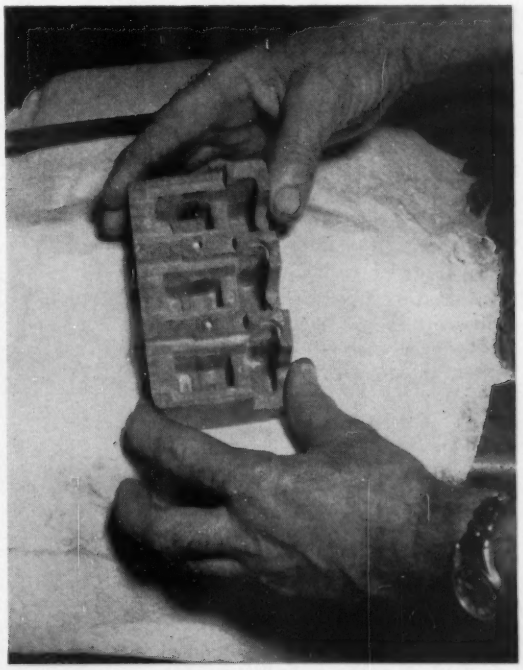
KEEP CONNECTIONS TIGHT. All connections in the switches and controls should be checked regularly and kept tight. Alternate cooling and heating as well as vibration will loosen nuts and screws.



USE FILE ON COPPER CONTACTS when it is necessary to dress them. The use of abrasive cloth and paper should be discouraged because they may leave non-conducting particles on the contact surfaces.



SEE THAT CONTACTS ALL MAKE UP AT SAME TIME and that contact pressure is sufficient. Do this regularly. Contact pressure is more important in controls than the contact area. Replace worn or badly burned contacts.



CHECK ARC CHUTES or barriers and if found to be badly burned or broken, replace them. This will prevent flash-over and possible badly burned pole pieces.

Reviews | Investigations | Explorations | Surveys | Analyses

instrument measures drafting

By William T. Waters
Department of Textile Research
School of Textiles
North Carolina State College

EXCLUSIVE

WITH THE ever increasing use of man-made fibers, mill overseers and superintendents now have the additional problem of evaluating fiber crimp and finish in determining the best processing setup for their staple synthetics and blends. These two fiber characteristics greatly affect the interfiber friction or drag and, therefore, the force and smoothness of the drafting operation.

Many experienced overseers are able to judge and evaluate these accurately by feeling and breaking the sliver or roving, but they do not obtain an actual measurement or value which could be used to much more advantage. The purpose of this paper is to present an instrument for measuring the forces of drafting, to systematically evaluate this instrument, and to show its practical application in evaluating fiber finishes.

In drafting, the fibers are caused to slide past each other fairly easily, but the real difficulty consists in sliding the fibers forward uniformly so that they will not advance before their proper turn and yet will do so easily when required. This sliding process is not continuous, but usually proceeds with a jerky motion in which the sliding fiber surfaces alternately stick and slip as a result of fiber friction. This phenomenon is usually termed the "stick-slip" effect and depends mainly on the coefficient of friction between fiber surfaces, the mechanical interlocking of fiber surfaces, and the effective surface area in contact.

Other fiber characteristics which might be expected to influence interfiber friction are fiber finish, crimp, length, fineness, luster, and roving twist.

Description of Draftometer. A combination mechanical and electronic instrument for measuring the forces of drafting has been developed by the Department of Textile Research, School of Textiles, N. C. State College. This instrument, tentatively called the Draftometer, was designed by C. M. Asbill, Jr., Head of the Department of Textile Machine Development, and is a modification of a similar

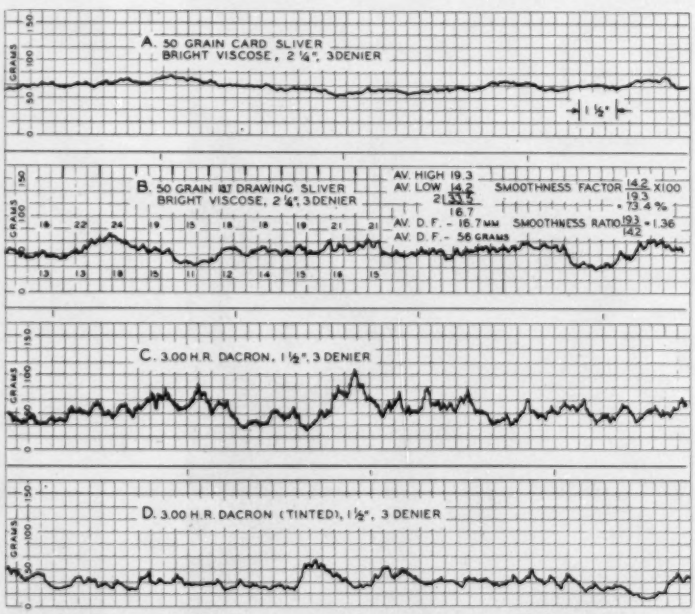
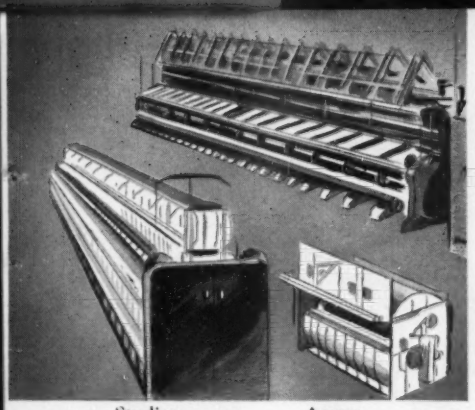

A. 50 GRAIN CARD SLIVER
BRIGHT VISCOSE, 2 ¼", 3DENIER
1 ½"
B. 50 GRAIN #7 DRAWING SLIVER
BRIGHT VISCOSE, 2 ¼", 3 DENIER
AV. HIGH 19.3
AV. LOW 14.2
SMOOTHNESS FACTOR 14.2/19.3 X100 = 73.4%
AV. D. F. - 16.7 MM
AV. D. F. - 56 GRAMS
SMOOTHNESS RATIO 19.3/14.2 = 1.36
C. 3.00 H.R. DACRON, 1 ½", 3 DENIER
D. 3.00 H.R. DACRON (TINTED), 1 ½", 3 DENIER
GRAMS

FIG. 1. Sample charts from the Draftometer. Samples A and B, processed from the same stock, show the increase in variations of drafting force with subsequent processing. Samples C and D are charts for Dacron stock sprayed with an oil-base tint. Chart B shows analysis for average drafting force and smoothness ratio.



Studies Assays

The "Draftometer," shown in the illustrations below, is a combination mechanical and electronic instrument which measures the drafting forces in sliver and roving. Its principal use thus far has been in determining the effect on drafting properties of the finishes applied to synthetic staple fibers.

The 17th article of a series dealing with research work and the practical application of research findings in the mill.

forces

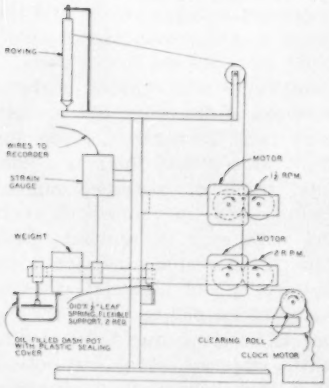
instrument developed by Tennessee Eastman Corporation.

Sample charts obtained from the Draftometer are shown in Fig. 1. Samples A and B, processed from the same stock, illustrate the increase in variations of drafting force obtained when Dacron stock is sprayed with an oil-base tint.

A sample calculation is shown in sample B in which the chart is analyzed for average drafting force and smoothness ratio. The smoothness ratio indicates the smoothness of drafting and is a ratio of the maximum and minimum forces encountered during drafting. A smoothness ratio of 1 would represent no variation of drafting force while larger values represent more uneven drafting. The smoothness ratio can also be considered a ratio of static friction to kinetic friction, since it is believed that the peaks represent static or starting friction and the lows represent kinetic friction.

Evaluation of Draftometer. A series of tests was run to investigate some of the variables that were expected to influence the precision of the results obtained on the Draftometer. The following results were found:

1. The sensitive length employed in calculating the charts does not affect the average drafting force, but has considerable effect on the smoothness ratio; an increase in sensitive length results in an in-



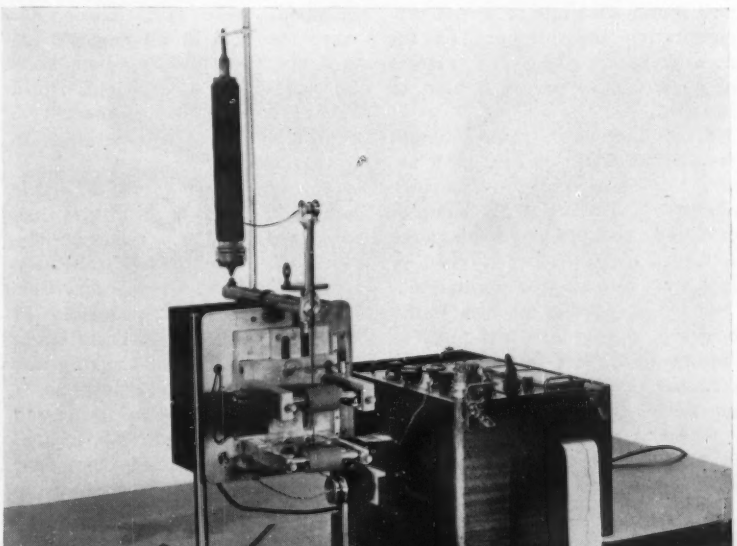


FIG. 2. The Draftometer consists of two lines of drafting rolls of which the lower pair is mounted in a pivoted cradle in such a way that the cradle is displaced when a force is applied. These lower rolls are flexibly supported on two thin spring-steel strips and counter-balanced by an off-center weight on an extension rod in the rear of the instrument. The force to pull the fibers past each other and the variations in this force result in mechanical displacements of the lower rolls, and these displacements are converted into an electrical signal by a strain gauge. This strain gauge is connected to an amplifier and recorder which produces a continuous graphical record of the drafting force. The purpose of the dash pot is to damp out the tendency of the pivoted cradle unit to oscillate at its natural frequency when any shock or sudden change of load occurs. The upper rolls are adjustable in the vertical position to accommodate different staple lengths, and in general the gauge length is set to the staple length plus ⅛ to ¼ inch. The speed of the lower rolls is 2 rpm and that of the top rolls 1.5 rpm, giving a draft of 1.33 which simulates the break draft of conventional drafting systems. These low speeds are necessary to allow the pivoted cradle system to accurately follow the variations in drafting force. The surface speed of the lower rolls is six inches/min. and the chart speed is 60 mm/min., resulting in a 2.5 to 1 material-to-chart ratio.

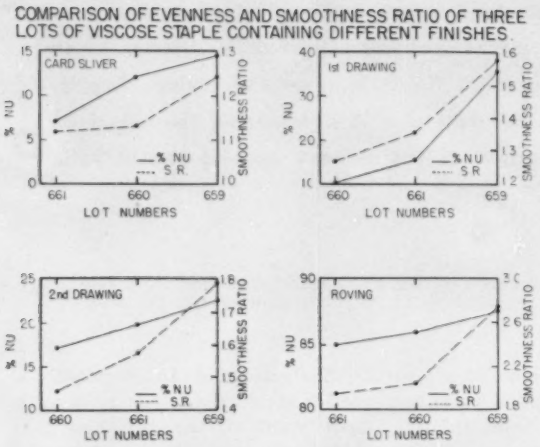


FIG. 3. Comparison of three lots of viscose rayon. Note that lots with higher smoothness ratios tend to have higher nonuniformity in the subsequent product.

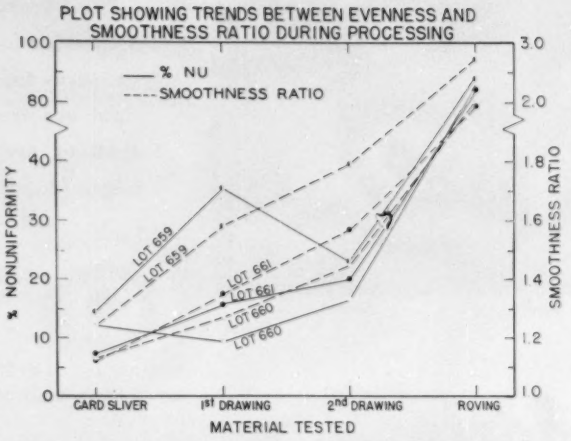


FIG. 4. Relationship between uniformity and smoothness ratio during processing. Note the common trend to increased nonuniformity and unevenness of drafting.

crease in smoothness ratio. It was found that a sensitive length of 1½ inches is sufficient to include most short-term variations which represent the "stick-slip" effect.

2. A sample length of 40 inches was found adequate to give a representative measurement of the average drafting force and smoothness ratio of a roving bobbin or can of sliver.

3. An increase in gauge length resulted in a decrease in both average drafting force and smoothness ratio. In comparing samples of different staple lengths, a gauge setting of staple length plus ¼ inch was chosen as the standard.

4. Good correlation was found between average drafting force as obtained on the Draftometer and cohesion as obtained on the Instron tensile tester.

5. An increase in twist resulted in an increase in average drafting force.

6. Variations in size or weight per unit length affect the average drafting force. For comparison purposes, the average drafting force should be divided by average weight per unit length to correct for variations in weight.

Evaluation of Finish on Viscose Staple Fiber. One of the more important objects of this work was to show a practical use of the Draftometer. An experiment was designed to study the effect of three finishes on the interfiber friction of viscose staple and to see if there was any correlation between smoothness of drafting and uniformity of subsequent products.

Three lots of 200,000-total denier viscose tow, 3 dpf, bright and crimped, were run. These lots were identical in all respects except for the finish applied. Each lot contained a different finish lubricant which was expected to exhibit appreciable differences in inter-fiber friction.

The tow was cut to a 2″ staple length on a Stokes cutter and then processed into 20s/1 yarn. The stock was carded on a roller-top card into 50-grain sliver and then run through two processes of drawing, making a 50-grain sliver each time. A 3.00-hank roving was made and then spun into 20s/1 yarn. Each lot was processed under identical conditions. In general, lot 659 processed from poor to fair and lots 660 and 661 from fair to good.

It was believed that the smoothness of drafting should have a direct effect on the uniformity of the subsequent product. A comparison of per cent nonuniformity and smoothness ratio between the three lots is shown in Fig. 3, and it can be seen that a common trend exists between these two properties in every case, i.e., the lots with higher smoothness ratios tended to have higher nonuniformity in the subsequent product. It is also noticed that in some cases a significant difference might not exist but the fact that the points represent average values and that there is a common trend adds a little more weight to the plots.

In Fig. 4, the relation is shown between uniformity and smoothness ratio throughout processing. It is noticed that there is a common trend of increased nonuniformity and unevenness of drafting with each subsequent operation. A noticeable exception is the uniformity of second drawing sliver of lot 659 in which the figure is in error due to stretching of the material, which was noticed as it ran through the uniformity analyzer.

TABLE 1. EVALUATION OF FINISH ON VISCOSE STAPLE 2-INCH, 3-DENIER, BRIGHT

Lot	Roving Drafting Force (Grams/Grain/5 in.)	Count-Strength Product
659	24.9	1562
660	77.6	1993
661	172.1	2020

The effect of finish on count-strength product of the yarns is seen in Table I. Lot 659 had the smallest drafting force throughout processing and also a significantly smaller count-strength product. Lots 660 and 661 had no significant difference in count-strength product but a considerable difference in average drafting force.

National Right to Work Committee

Organization of a National Right to Work Committee, to defend at all levels an American citizen's right to hold a job without being forced to join a labor union, was recently announced jointly by E. S. Dillard, president of the Old Dominion Box Company, who is chairman of the board of the new committee, and Fred A. Hartley, Jr., retired member of Congress from New Jersey and co-author of the Taft-Hartley Act, who will serve as president of the Committee.

Both Mr. Dillard and Mr. Hartley made it clear that the Committee was not anti-union, and would defend a man's right to join a union voluntarily just as vigorously as it opposed his being forced to do so against his will.

"The National Right to Work Committee is completely nonpartisan, and we expect to have members and support from all sections of the country and of all political beliefs," according to Mr. Dillard. "We are supported entirely by voluntary contributions, and our one objective is to defend the right of American citizens to obtain or hold a job without forced membership in any private organization.

"To carry out this objective, we expect to concentrate on the following program:

"1. To carry on a national educational campaign aimed at public understanding of compulsory unionism and the threat it poses to the freedom of all of us;

"2. To encourage and support both employers and employees who are resisting the adoption of union shop and other compulsory unionism provisions in labor-management contracts.

"3. To assist workers who are already fighting, through the courts and otherwise, to avoid discharge from their jobs under union shop contracts because they personally do not want to join a union;

"4. To provide information and material for the various state groups fighting compulsory unionism; and

"5. To serve as a clearing house and information center for all who are active and concerned over this matter."

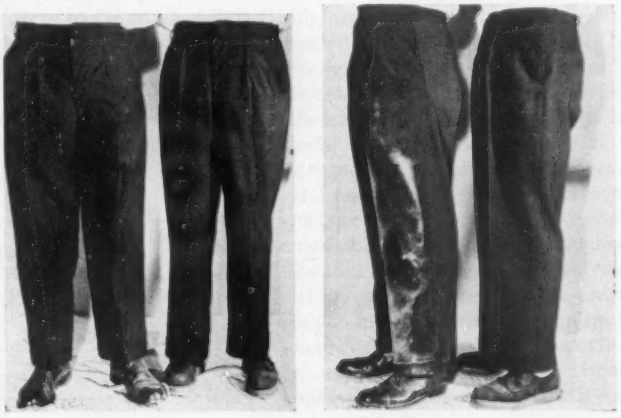
Dry Cleaners' Static Problem Solved

It may be of interest to textile manufacturers of fabrics of both natural and synthetic fibers to know that dry cleaning establishments which have always complained of static now have available to them products which eliminate this—static build-up during the tumbling process when the garments are hot and dry results in adherence of loose lint, hair, and dirt particles; removal of this lint and dust is a costly finishing operation.

One of these products, manufactured by Davies-Young Soap Co., Dayton, Ohio, is called Buckeye "Clean-Charge."

Results of tests conducted by E. I. du Pont de Nemours & Co., Inc., in conjunction with the manufacturer of "Clean-Charge," indicate that the product in a 4% solution in Perclene and Stoddard petroleum solvent systems will not only free synthetic garments of their charge immediately, but will keep the fabric lint-free and cling-free.

The accompanying photos, which were made during this research program, illustrate the effectiveness of this detergent incorporating an anti-static agent.



100% Dacron trousers on the left in both photos were dry cleaned without "Buckeye Clean-Charge"; those on right were cleaned in a one bath 4% Buckeye Clean-Charge solution. Slacks had been worn approximately 12 times since cleaning. Relative humidity in room where pictures were taken was 18% and temperature 60 F. **Left photo:** Trousers were flexed against leg six times to induce a static charge. Note clinging on trousers to left. **Right photo:** Vacuum cleaner dust mixed with flour was sprinkled alongside the trouser legs to show lint attraction characteristic. Note tendency of unprotected fabric at left to attract lint in low humidity.

It is believed that there exists an optimum range for inter-fiber friction in relation to strength.

In the evaluation of these finishes, it is seen that finish 659 is definitely inferior in processability, evenness, and yarn strength, and that there is no significant difference between the yarns produced with finishes 660 and 661. However, it is noticed that lot 660 produced slightly more even products up to spinning and had a smaller drafting force. It is also seen in this evaluation that there exists a very definite trend between smoothness of drafting and uniformity of subsequent product.

Cotton examines its

1. **A new extra-long staple cotton**
2. **Instrument speeds up fiber fineness tests**
3. **A new cleaner for trashy cottons**

Staff Report

THE COTTON Research Clinic, now five years old and becoming increasingly recognized as the cotton textile industry's most important research forum, met this year at Pinehurst, N. C., on February 16-18, under the sponsorship of the National Cotton Council. The more than 250 mill men and representatives of allied interests in attendance heard speakers discuss research developments which have already reached the stage of practical mill application, and received advance reports on projects which, while they may not leave the laboratory for some time, will have an important effect on the textile industry in years to come.

Turning to the industry's economic problems, research men at the Clinic dinner meeting listened approvingly as H. K. Hallett, vice-president of Kendall Mills, demolished the position of the free-traders who would drop all trade barriers and open the gates of this country to a flow of cheaply made foreign goods. According to Mr. Hallett, U. S. businessmen who are "yelling the loudest" for free trade generally fall into one of three groups: those who are completely protected by patents; those whose labor costs are an insignificant part of their total costs; or those who have foreign plants and would just as soon do their manufacturing abroad.

Highlights from the technical papers of greatest interest to mill men are presented in this report.

A New Extra-Long Staple Cotton. The results of commercial spinning tests on Pima S-1, an American-grown extra-long staple cotton designed to replace Karnak, were reported by Burt Johnson of the National Cotton Council. Pima S-1 is a complex cross of Pima, Tanguis, and upland strains, and has a staple length of about 1 7/16 inches. This year's crop is expected to total about 15,000 bales.

Pima S-1 is characterized by a high fiber length uniformity; it is coarser according to Micronaire readings than are the present commercial strains of extra-long staples; it is slightly weaker than some of its competitors; and has measurably more elongation than Karnak and several strains of American-Egyptian cotton.

Fourteen plants making a wide range of yarn numbers cooperated

SUMMARY OF FIBER PROPERTIES, EXTRA-LONG STAPLE COTTONS

Fiber Property	Variety		
	Pima S-1	Karnak	Pima 32
GRADE	Grade 3	Fully Good - 1/4 to Good/Fully-good	Grade 2
LENGTH			
Classer (in.)	1-7/16	1-7/16	1-1/2
Suter-Webb			
UQ (in.)	1.42	1.35	1.54
Mean (in.)	1.22	1.07	1.26
C. V. (%)	24	34	31
Fibrograph			
UHM (in.)	1.37	1.25	1.45
Mean (in.)	1.16	0.96	1.18
UR	85	77	81
FINENESS			
Suter-Webb (Hg./in.)	3.2	2.8	2.8
Micronaire	3.9	3.2	3.4
Arealometer			
Specific Area (mm^2/mm^3)	486	550	522
MATURITY			
Sodium Hydroxide Method (%)	94	86	89
STRENGTH			
Pressley Index (lb./mg.)	8.92	9.18	9.56
Stelometer			
Tenacity (g./grex at 2.5 mm)	2.89	2.72	2.98
ELONGATION			
Stelometer (mm at 2.5 mm)	0.34	0.30	0.30

research program

4. How to save $35,000 on card waste
5. How to double card production
6. How short fibers affect quality

in commercial spinning tests of the new cotton. Tests were made in each case on both the mill's regular mix, usually Karnak, and on the Pima S-1. Chief results of the tests were:

1. Pima S-1 is equal to or slightly better than Karnak in waste losses, noils removed, and ends down.

2. Pima S-1 makes fewer neps than previous commercial strains of American-Egyptian, but usually makes a few more neps than Karnak.

3. Average strength increase of Pima S-1 over Karnak was 14 per cent in single yarns, 13 per cent in plied yarns.

4. Yarn grades were equal to or better than those of yarns made from Karnak.

Louis A. Fiori of the Southern Regional Research Laboratory gave details of a pilot plant evaluation of the yarn properties and processing performance of Pima S-1 as compared to Karnak and Pima 32, an American-Egyptian variety. The three cottons were processed alike on conventional equipment into a range of relatively fine single and two-ply yarns.

The principal conclusions of the pilot plant tests were:

1. The general processing efficiency of Pima S-1 was equal to that of the control cottons.

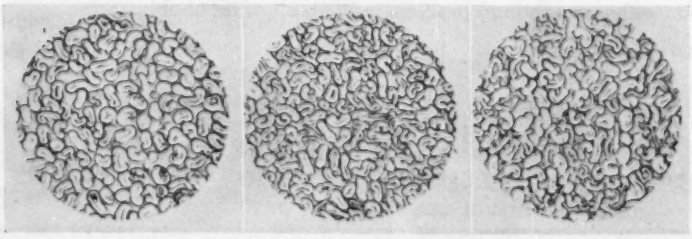
2. The Pima S-1 neps less readily than Karnak or Pima 32 [this is not in complete agreement with the mill results reported above.—Eds.].

3. For a given twist or draft Pima S-1 consistently made a stronger yarn than Karnak and as strong a yarn as Pima 32, with optimum tpi about the same for all three varieties.

4. Yarns made from Pima S-1 were consistently more uniform than those made from the other two cottons, and had about 17 per cent more elongation.

5. The general response of Pima S-1 to mercerizing and to subsequent dyeing was slightly better than that of the other cottons tested.

CROSS SECTIONAL PHOTOMICROGRAPHS (left to right) of Pima S-1, Karnak, and Pima 32. Note that the Pima S-1 appears to contain more full-bodied fibers than do the other two cottons.



Rapid Measurement of Fiber Fineness. A new instrument for the rapid measurement of fiber fineness was described by Kenneth L. Hertel of the University of Tennessee. The instrument, called the "Speedar" (from high *speed Area*lometer), is a self-contained air flow instrument using low pressure differential for measuring the specific area or fineness of fibers without altering the relative humidity surrounding the fiber.

The instrument is intended to replace a fixed sample weight by a weighted sample to which the instrument is readily adjusted. Time is saved in the weighing operation, and both fineness and compressibility or modulus are obtained.

The Speedar consists of two interconnected portions. The weighing portion accepts sample and indicates its weight. The compression portion is then adjusted to that weight, after which the sample is transferred, compressed, and measured.

Samples of 5 to 10 grams can be tested with the Speedar, and operation is simple and rapid. The only practical factors limiting the number of samples that can be tested in a unit of time are sampling, identification of samples,

...naturally it's

AMERICAN MONORAIL

This American MonoRail Monotractor unit, recently installed in a rug and carpet warehouse, dispatches hard to handle, big bulky loads over a wide area. Fully automatic, with finger-tip control, with a hoist capacity of 1,000 pounds, this installation is SAVING 200 MAN HOURS PER WEEK.

This is another of the many examples of American MonoRail engineering for low-cost, efficient overhead handling. Let your American MonoRail representative explain the versatility, low cost and low maintenance of American MonoRail equipment. Consultation in connection with any handling problem is available without obligation.

AMERICAN OVERHEAD HANDLING EQUIPMENT

MONORAIL COMPANY

13106 ATHENS AVENUE • CLEVELAND 7, OHIO

[IN CANADA—CANADIAN MONORAIL CO., LTD., GALT, ONT.]

and recording of results.

The reproducibility of fineness measurements made with the Speedar is claimed to be as good as for other air flow instruments.

The SRRL Carding Cleaner. The Textile Machinery Development Unit of the Southern Regional Research Laboratory has been engaged for some time in the development of equipment and methods for cleaning the increasing amounts of mechanically harvested cotton being received by the mills. The latest step in the Laboratory's program, the SRRL Carding Cleaner, was described by its co-inventor, George J. Kyame.

The machine, which is still in the experimental stage, is similar to a downstroke buckley-type cleaner, but with the customary beater replaced with a licker-in type carding cylinder. A novel feature of the machine is an "anti-pluck" feed roll with two sets of teeth pointed in opposite directions, and used in conjunction with a spring-loaded feed plate.

Cleaning efficiency of the quarter-size machine is 60-78 per cent, and if results are confirmed by a production-size machine now under construction the SRRL carding cleaner will be capable of production at the rate of 400 pounds per hour.

Several interesting conclusions were reached or reconfirmed during the development of the machine:

1. A condenser-type carding cylinder is unsatisfactory for cleaning cotton.

2. To achieve cleaning efficiencies greater than 30 per cent, grid bar to beater teeth clearances have to be 1/16″ or less.

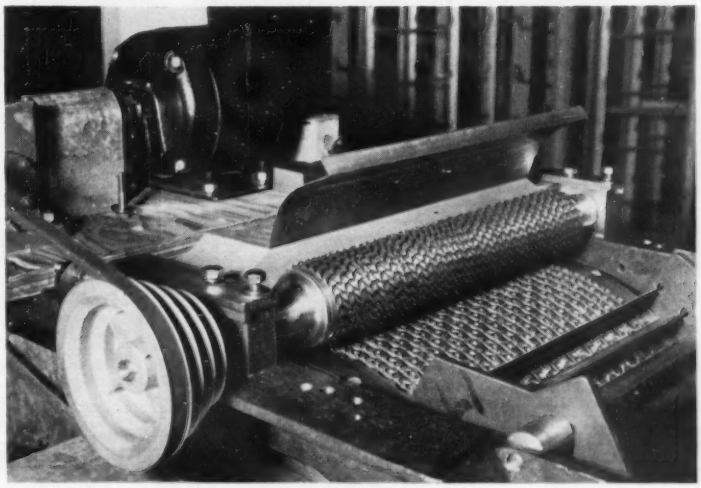
3. Cleaning efficiency increases with increasing spacing of the grid bars.

4. Decreasing the included angle at the leading edge of the grid bar makes cleaning efficiency less susceptible to the angle of tilt of the grid bar.

5. Cleaning efficiency increases with increasing openness of the stock.

How to Reduce Waste at the Card. Methods for reducing waste at the card occupied the major part of one of the Clinic sessions. John F. Bogdan of the School of Textiles, N. C. State College, detailed the results of a research project sponsored by six cotton spinning mills; the mill application of his results was described by E. Allen Bentley of Swift Manufacturing Co.; and Hugh M. Brown of Clemson School of Textiles gave a progress report on a preliminary study which developed from previously reported work on reversing the direction of motion of the card flats [see TEXTILE INDUSTRIES for April, 1954, pp. 179-80].

The methods developed at N. C. State for reducing card wastes resulted from an extension of the School's well-known work on nep control. The procedure requires no new gadgets or radical departure from current practices, but rather is a combination of careful settings

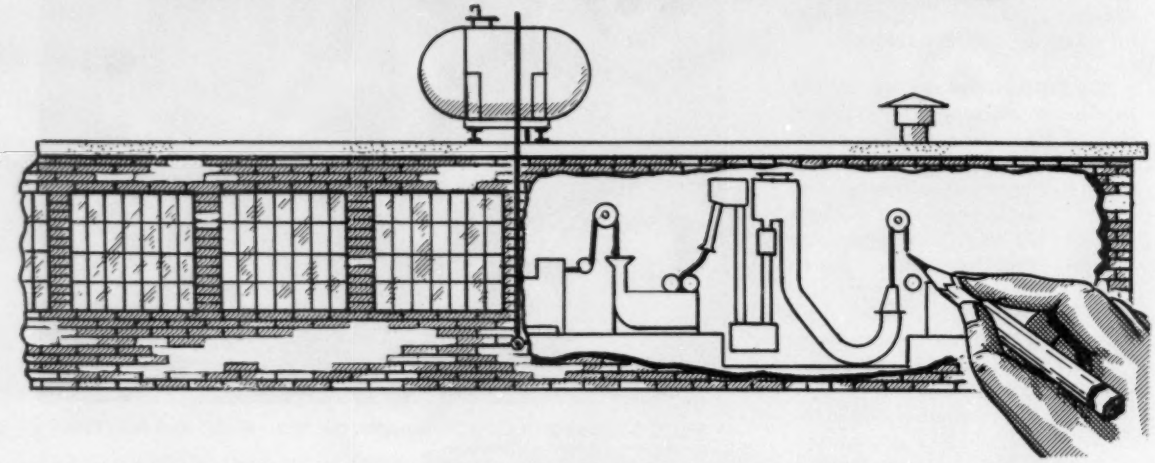


SRRL CARDING CLEANER, showing the "anti-pluck" feed roll. This is the experimental model.

HERE ARE THE CARD SETTINGS RECOMMENDED BY N.C. STATE, AND THE MODIFICATIONS USED BY SWIFT MANUFACTURING CO.

	N.C. State	Swift Mfg. Co.
Speeds:		
Licker-in, rpm	800	800
Cylinder, rpm	165	168
Flats, in./min.	0.40	0.75
Settings, thousandths of inch:		
Feed plate to licker-in	12	12
Mote knives to licker-in		
Top and bottom	7	10
Top mote knife to feed plate, inches	1	1
Bottom mote knife to bars, inches	7/8	1/2
Top edge of back plate to flats	10	—
Mote knife angle, degrees	30	30
Licker-in screen to licker-in:		
Back, middle, and front	10	34
Licker-in to cylinder	7	7
Back knife plate to cylinder:		
Top	22	34
Bottom	68	34
Flats to cylinder:		
Back	7	10
Intermediate	7	10
Intermediate	9	10
Intermediate	10	10
Front	12	10
Continuous stripper, inches	—	1-1/4
Flat stripping comb to flats	15	15
Front knife plate to flats	10	—
Front knife plate to cylinder:		
Top and bottom	34	34
Doffer to cylinder	5	5
Doffer comb to doffer	17	22
Cylinder screen to cylinder:		
Back	29	29
Center	68	34
Front	187	68
Type of licker-in screen	Grid	Perforated
Type of cylinder screen	Grid	Perforated

Faster, more efficient bleaching starts with expert planning...



and here's how DU PONT can help you with its SPECIAL MODERNIZATION SERVICE

When you plan an expansion or modernization with Du Pont's help, you can be sure that every significant detail of your bleaching operation will be expertly evaluated.

With your production requirements in mind, experienced Du Pont technicians will survey your present equipment and bleaching method. Using this information as a base, a group of specialists will then work-up a detailed recommendation. It will show you how you can reach your new production goals, economically and without a waste of valuable floor space.

If new equipment or extensive modifications are needed, a proposal and layout will be presented for your consideration. Du Pont will even help you put your final plan into operation and guide you in the training of operators.

Here are some of the other services offered to you by Du Pont.

On-the-Spot Help with any immediate bleaching problem from Du Pont textile specialists servicing all important textile centers.

Technical Literature. A wealth of up-to-date information on all phases of textile bleaching is always available from Du Pont at your request.

Confidential Bleachery Survey to help you in maintaining or improving efficiency of your bleaching operation. A confidential report summarizes results and makes recommendations for your guidance.

Peroxide Bleaching Systems. More Du Pont peroxide bleaching systems are in use throughout the world than any other continuous system. We can show you how these processes can be adapted to *your* bleaching needs.

Bulk Storage Systems. Technical help with installation of equipment for buying and storing hydrogen peroxide in money-saving tank truck and tank car lots.

Top-Quality Hydrogen Peroxide. You're assured of prompt, dependable delivery of "Albone" hydrogen peroxide—in drums, tank trucks, and tank car lots.

For full details, call your nearest Du Pont representative or write to: E. I. du Pont de Nemours & Co. (Inc.), Electrochemicals Department, Wilmington 98, Del.

CALL DU PONT FOR HYDROGEN PEROXIDE AND A *COMPLETE* TEXTILE BLEACHING SERVICE

ALBONE

REG. U.S. PAT. OFF.

HYDROGEN PEROXIDE

DU PONT

REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

In Boston, call Hancock 6-1714; in Charlotte, Franklin 5-5561; in New York, Longacre 3-6440; in Philadelphia, Kingsley 5-1900.

OTHER DISTRICT SALES OFFICES TO SERVE YOU

Baltimore	Dallas *	New Orleans *
Chicago	Detroit	Oklahoma City *
Cincinnati	Houston *	San Francisco
Cleveland	Kansas City *	Tulsa *
Corpus Christi *	Los Angeles	Wichita *

Export Division, Wilmington 98, Del.

**Baroda & Page, Inc.*

and comparatively minor modifications of certain parts of the card. By these methods, carding wastes were reduced in the laboratory by an average of 2¾ per cent of lap weight without lowering yarn appearance or strength. The work reported was concerned with cottons of a maximum staple length of 1 1/16″.

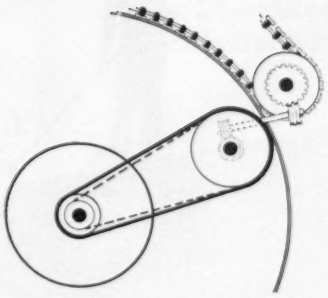
The most important changes made were a reduction in flat speed to 0.40″ per minute, relocation of mote knives to a point about midway in the opening between feed plate and licker-in screen, an increase in licker-in screen length of ⅝″ along the curved dimension, closing settings between front knife plate and flats and back knife plate and flats to 0.010″, increase of licker-in speed to 800 rpm, moving the licker-in cover toward the feed roll, and opening the setting between the bottom edge of the back knife plate and the cylinder.

Mr. Bentley reported on the results of the application of the N. C. State recommendations to 10 cards at his mill. Although not all of the settings and changes made at the School were found to be practical in the mill, by adhering as closely as possible to the N. C. State procedure the Swift Manufacturing Co. was able to reduce waste by 1.54 per cent on the 10 test cards. The mill now plans to extend the use of the N. C. State recommendations to 100 cards, with an anticipated annual saving in waste of $35,000.

Dr. Brown's report was concerned with two suggestions which developed from his work with reversing the normal direction of motion of the card flats. First, a waste removal cylinder was mounted between the licker-in and the flats. This was intended to serve somewhat the same purpose as a worker on a wool card, and is positioned so that it is stripped by the licker-in.

The waste cylinder did not remove additional motes, as had been expected; in fact there was a decrease in mote removal, and no significant reduction in neps. However, there was a surprising reduction in white waste in the mote box.

Investigation showed that this latter fact was probably due to the effect of the waste cylinder on air currents in the mote box. To study the problem further, the card was operated at different air pressures in the mote box. With high licker-in speeds the use of added mote box pressure gave as good mote removal and total lint saving as were given by the waste removal cylinder, and in the licker-in waste the reduction of lint loss was greater than that obtained with the waste cylinder.



DRIVE FOR CARD FLATS, as recommended by N. C. State College School of Textiles. Flat speed can be reduced 50 per cent by removing cylinder drive pulley and running flat pulley from hub of cylinder.

Dr. Brown emphasized that his work must be considered as "very preliminary." Numerous variables remain to be tested, including different speeds, settings, types of clothing, types of air flow, shape of housing, etc.

High Production Carding. The results of the N. C. State College research project on increasing card production were first discussed at the 1951 Cotton Research Clinic. Since then the recommendations put forward have been tried by numerous mills, with widely varying degrees of success. The U. S. Rubber Co. has been experimenting with N. C. State's findings since 1952, and the mill's results were discussed by Stuart H. Sherman.

At U. S. Rubber Co., the card was modified by adding another coiler, the web split by dropping a steel ribbon between the doffer and cylinder [see TEXTILE INDUSTRIES for February, 1952, p. 133], and a standard attachment for feeding two laps added. To prevent plucking, the regular feed roll was replaced with a special feed roll having deeper flutes, and 18 pounds of weight were added to each side of the roll. In addition, the top mote knife was replaced with a Saco-Lowell control roll.

Other changes made were:

1. Licker-in speed increased to 650 rpm.
2. Cylinder speed increased to 203 rpm, and production gear changed to maintain original feed roll and doffer speeds.
3. Flat pulley changed to maintain original flat speed.
4. Perforated screens installed.

Total cost of the changes was about $1100, installed.

Two changes in settings were made. The feed plate was set 0.045″ from the licker-in, and the control roll was set 0.007″ from the licker-in.

The results of these changes were:

1. Production doubled, from 9.6 to 19.2 pounds per hour.
2. Neps were reduced 30 per cent.
3. Sliver was more even.
4. Yarn had equal or better strength.
5. Waste was reduced 34 per cent, from 4.24 to 2.80 per cent.
6. Costs were further reduced through less floor space requirement for the same production and less grinding per pound of cotton processed.

These results were obtained on an experimental card, and have not yet been applied in production.

How Do Short Fibers Affect Cotton Quality? Recent cotton processing studies conducted by the Textile Research Institute have demonstrated that the presence of a large number of short fibers in cotton causes appreciable increases in processing waste, excessively uneven roving and yarn, less efficient spinning, and weaker yarns than would otherwise be expected. TRI's Helmut R. Wakeham outlined various methods of measuring fiber length distribution and of indicating excessive quantities of short fibers in the sample.

The usual methods for evaluation of the proportion of short fibers in a bale (Fibrograph and

Get full 28 Day Curing for Greater Density with CEM-SEAL

Unless properly sealed, a new concrete floor has a natural tendency to deposit alkaline salts on the surface as it cures. This causes surface powdering, called "dusting" or "bloom."

CEM-SEAL acts as a cap or dam to hold moisture down below the surface. This prevents formation of the damaging salts — and it also prolongs the curing period of the concrete. The surface comes through denser, harder, more resistant to wear.

Application is simple and easy. Treat acres of floor in a short time with big sheepskin applicators. Floors can be opened to traffic in just 4 hours.

CEM-SEAL is also an ideal primer for renewing old concrete floors.

Check these CEM-SEAL advantages — never before available.

1. **Goes on easy — just sweep floor and apply.**
2. **1-coat quick dry application — seals moisture in the concrete.**
3. **Complete curing of concrete gives you a dense, uniform surface with longer life.**
4. **Protects floor from stains while other building trades are at work.**
5. **Prevents "dusting" and efflorescence.**
6. **Gives you a smoother surface for easy maintenance.**

HILLYARD CHEMICAL CO.
St. Joseph, Mo.
Please send me full information about Hillyard CEM-SEAL.

.....for new concrete

.....for renewing old concrete

Name .....

Address .....

City ..... State .....

Mail This Coupon Today

Hillyard Maintaineers®, trained floor experts, are stationed in principal cities. There is one near you, who will be glad to consult with you on your problem of treatment or maintenance of any type floor. No charge, no obligation for this service.

FLOOR HILLYARD TREATMENTS

ST. JOSEPH, MISSOURI
San Jose, Calif. Passaic, N. J.
Branches in Principal Cities

length array) are relatively insensitive guides. A better method is to make actual measurements of individual fiber lengths on carefully selected samples. This sounds like a formidable task, but TRI has developed a recording fiber length tester based on the Wool Industries Research Association (England) length meter [see TEXTILE INDUSTRIES for September, 1953, pp. 119 and 121], which will quickly and accurately measure fibers as short as 0.2 inch. Accurate mean lengths and rough length distributions may be obtained with as few as 200 fibers if the selection is properly made.

The inferior quality of cottons containing excessive quantities of short fibers was pointed up by Dr. Wakeham through a discussion of four case histories. The effect of overdrying at the gin was illustrated in a series of tests completed last year [see TEXTILE INDUSTRIES for November, 1954, p. 135].

A considerable preponderance of short fibers was found in a sample of cotton with pronounced symptoms of deterioration and identified as cavitomic [see TEXTILE INDUSTRIES for July, 1953, pp. 100-102]. Fiber breakage may also occur as a result of mill processing, as has been amply demonstrated by studies at TRI [see TEXTILE INDUSTRIES for May, 1954, pp. 104-107].

The effect of the presence of short fibers also holds true for combed slivers and rovings, recent work by TRI in cooperation with the American Thread Co. appears to indicate. Comparative tests on samples of Karnak and of Amsak cottons showed that their lengths were equal before combing, but that the Amsak had fewer short fibers and more long ones after combing, and their strengths were affected accordingly.

Other Papers Presented. The subjects discussed in several of the other papers have previously been covered in TEXTILE INDUSTRIES: "Gin Overdrying—Its Effects on Cotton Processing and Yarn Quality," by William R. Keyser, Jr., of the Institute of Textile Technology March, 1954, pp. 171-2; "Management of Quality—Studies on Cotton Yarn Imperfections" (The Neptel), by Charles C. Wilson, West Point Manufacturing Co., October, 1954, pp. 142-49; and the Tek-Ja twistless yarn process, described by Richard D. Wells of Bates Manufacturing Co. and John W. Powischill of Proctor & Schwartz, Inc., March, 1954, pp. 100-02.

New Handling Systems to Highlight Materials Handling Conference

New systems of materials handling will highlight the three-day conference to be presented by the American Material Handling Society in Chicago in May. Problems of manufacturing plants which must continue production in outmoded, multi-story buildings, as well as in those where plant layout is of the latest design, will be considered.

The conference will run during the first three days, May 16-18, of the week of May 16-20 during which the 6th National Materials Handling Exposition will be presented. Both events will take place at the International Amphitheatre.

The show will demonstrate all types of materials handling equipment under simulated factory conditions. More than 200 companies will exhibit. The displays will occupy the combined facilities of the old building of the International Amphitheatre and its newly-constructed addition.

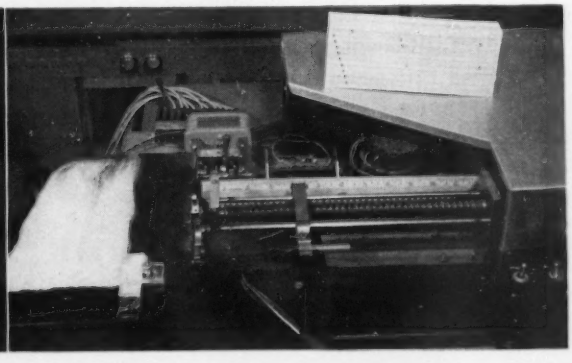
Both the conference and the exhibits will be keyed to the theme, "The Concept of Obsolescence." This theme was selected because much of American industry's materials handling equipment is out-moded, the announcement stated.

Topics to be discussed cover the wide range of cost reduction; effect of handling on production problems; receiving; warehousing; shipping; containers; palletization; storage patterns; loading and unloading facilities; purchase, leasing, replacement and maintenance policies; analysis of materials handling problems and its relationship to layout and production; water, rail and over-the-road carriers, and yard handling.

Information and advance registration cards may be obtained from Clapp & Poliak, Inc., 341 Madison Ave., New York 17, N. Y.

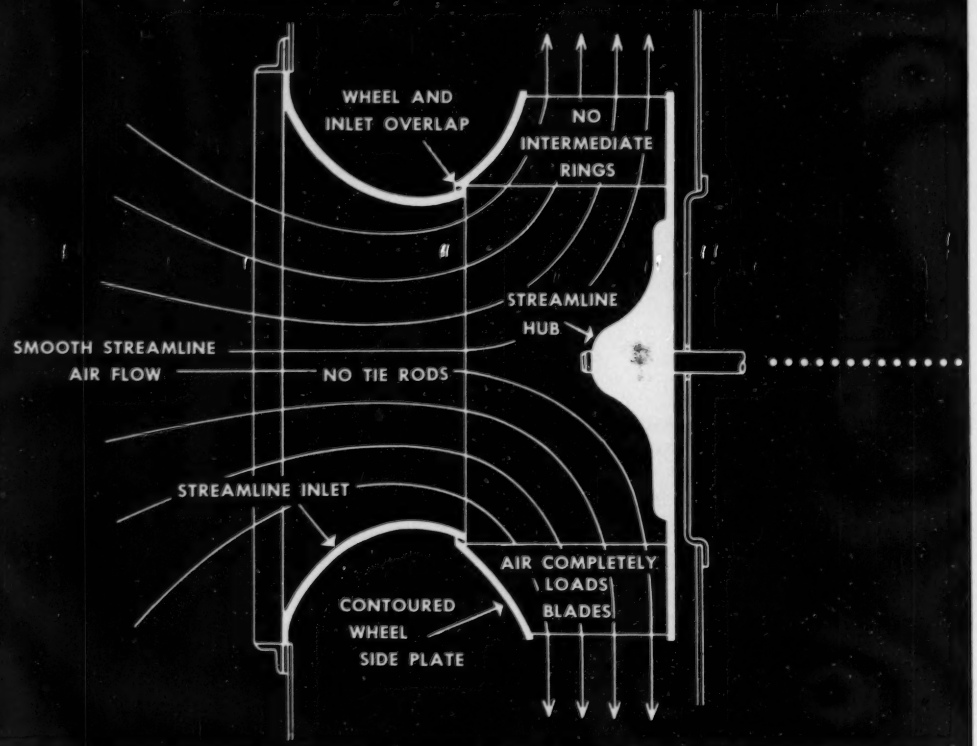
FIBER LENGTH ARRAYS of seed cotton and bale cotton from the same source.

AUTOMATICALLY RECORDING single fiber length tester developed at TRI.



Fact:

Westinghouse Aerodynamic Fan Line More Efficient,



MECHANICAL EFFICIENCY 86%...
STATIC EFFICIENCY OVER 80%

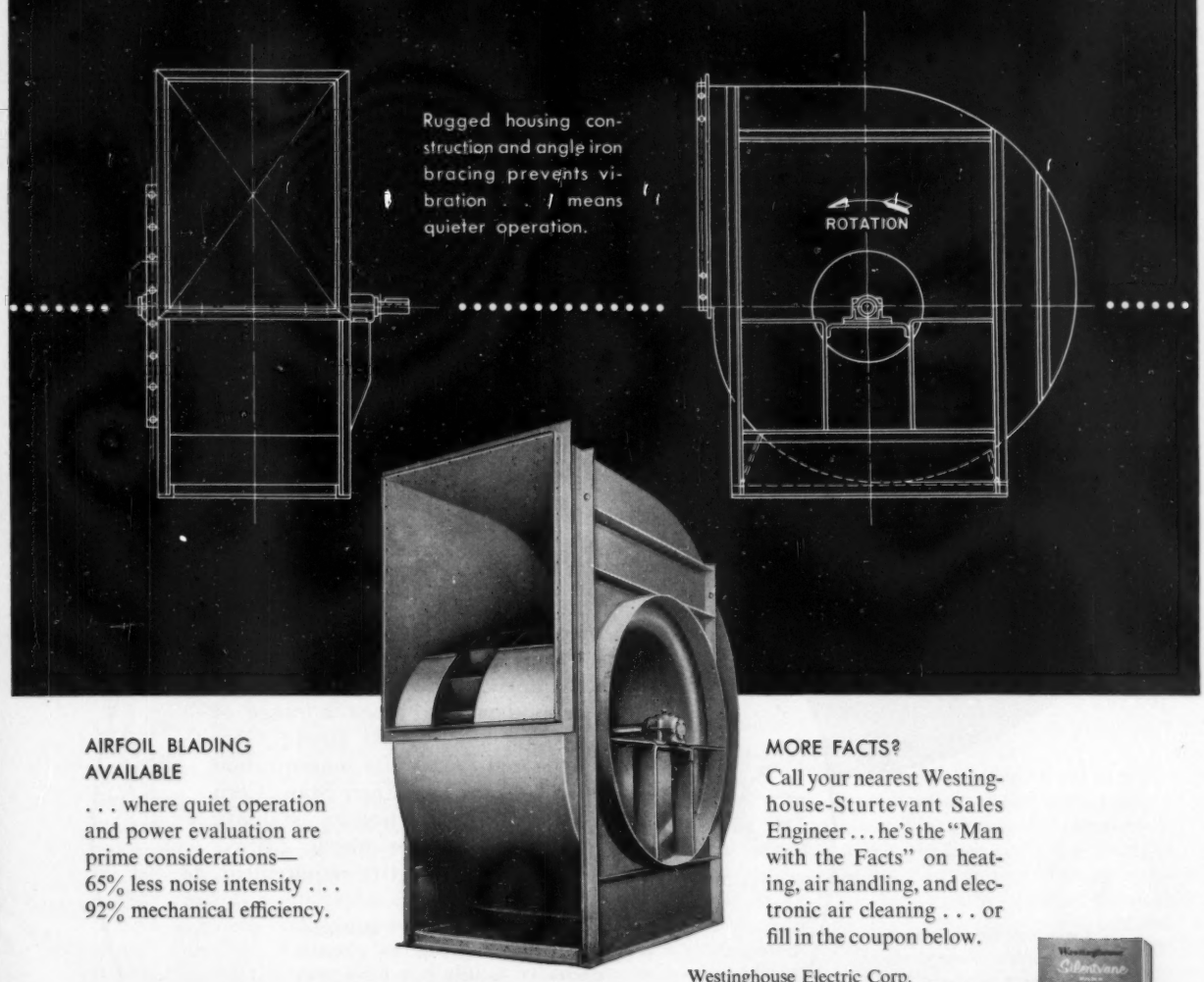
With unobstructed airflow through the wheel in all sizes, the "Silentvane" fan line also offers these other practical advantages:

1. **True self-limiting horsepower characteristic**
2. **Peak horsepower developed in normal selection range**
3. **Quiet, stable operation**
4. **Sharply rising pressure characteristic throughout normal performance range**

WIDE RANGE OF APPLICATION

Handling from 600 to 500,000 cfm, the performance-proved Westinghouse "Silentvane" fan line provides an almost unlimited choice of air moving equipment. Coupled with Westinghouse-Sturtevant power-saving Vane Control, "Silentvane" fans offer precise control of air volume at optimum efficiencies. In smaller sizes, 36" and under, fan arrangements are convertible.

Research Makes "Silentvane" Quiet, Non-Overloading



AIRFOIL BLADING AVAILABLE

. . . where quiet operation and power evaluation are prime considerations—
65% less noise intensity . . .
92% mechanical efficiency.

MORE FACTS?

Call your nearest Westinghouse-Sturtevant Sales Engineer . . . he's the "Man with the Facts" on heating, air handling, and electronic air cleaning . . . or fill in the coupon below.

WESTINGHOUSE AIR HANDLING

YOU CAN BE SURE . . . IF IT'S

J-80437

Westinghouse

Westinghouse Electric Corp.
Sturtevant Division, Dept. 13C
Hyde Park, Boston 6, Mass.

I'm interested in your new booklet. Send me a copy right away.

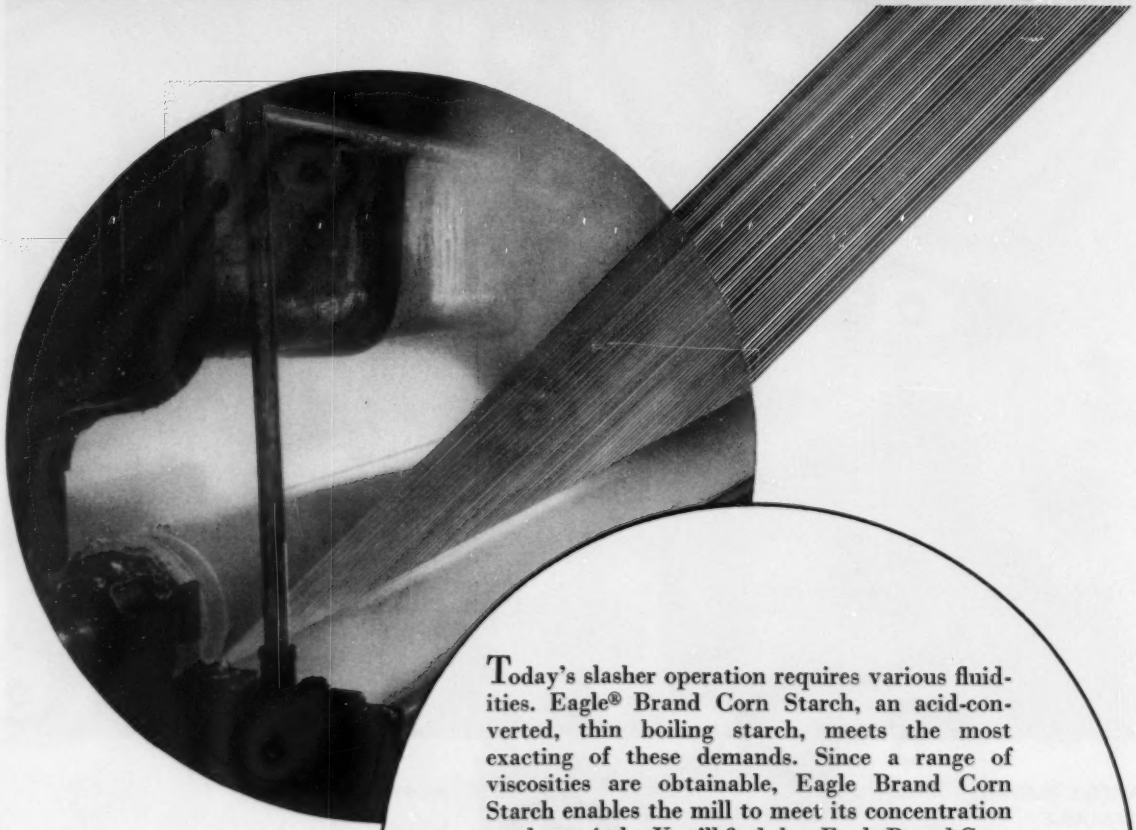
NAME AND TITLE.....

COMPANY.....

CITY.....STATE.....

Get more uniform sizing of cotton yarns with...

EAGLE CORN STARCH

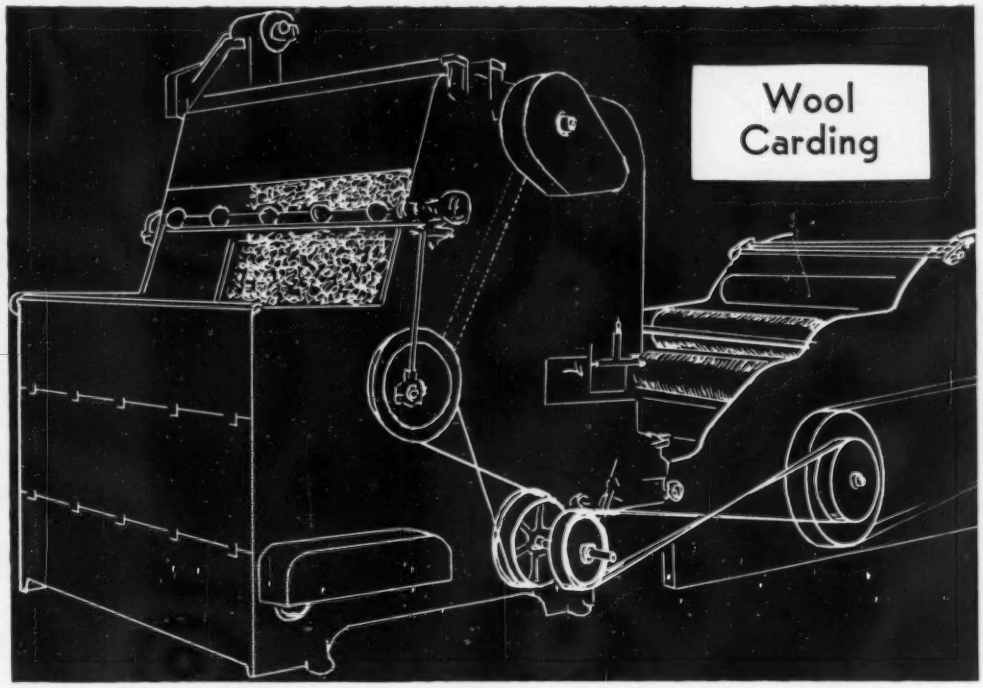


Today's slasher operation requires various fluidities. Eagle® Brand Corn Starch, an acid-converted, thin boiling starch, meets the most exacting of these demands. Since a range of viscosities are obtainable, Eagle Brand Corn Starch enables the mill to meet its concentration needs precisely. You'll find that Eagle Brand Corn Starch will give you greater viscosity stability and uniformity than any other starch. Always available, we can fill any quantity requirement.

"A complete line of starches from the world's prime producer of starch products."

Technical mill and laboratory assistance is yours without obligation. We welcome an opportunity to help you solve your specific production problems. Write us.

CORN PRODUCTS REFINING COMPANY
17 Battery Place, New York 4, N. Y.



For uniform woolen yarn, it's

GOOD START — GOOD FINISH

Staff Interview
EXCLUSIVE

CONTROL of roving weight is undoubtedly the most knotty problem which faces the woolen carder. Good roving, and hence good yarn, must begin with uniformly fed stock at the beginning of the carding operation, so the Bramwell or other automatic weighing feeder is the keystone of uniformity in the spinning of woolen yarns.

The latest types of wool card feeders approach completely automatic operation. However, attention to the details of speeds and settings is still vital, and constant checking and preventive maintenance is the price which must be paid for uniformly high quality of product.

Feed Hopper. The modern Bramwell feeder has a feeler assembly which automatically gauges the amount of stock in the hopper and increases or decreases the speed of the spike apron accordingly. With this arrangement the feeder can run almost to empty while still maintaining correct delivered weights.

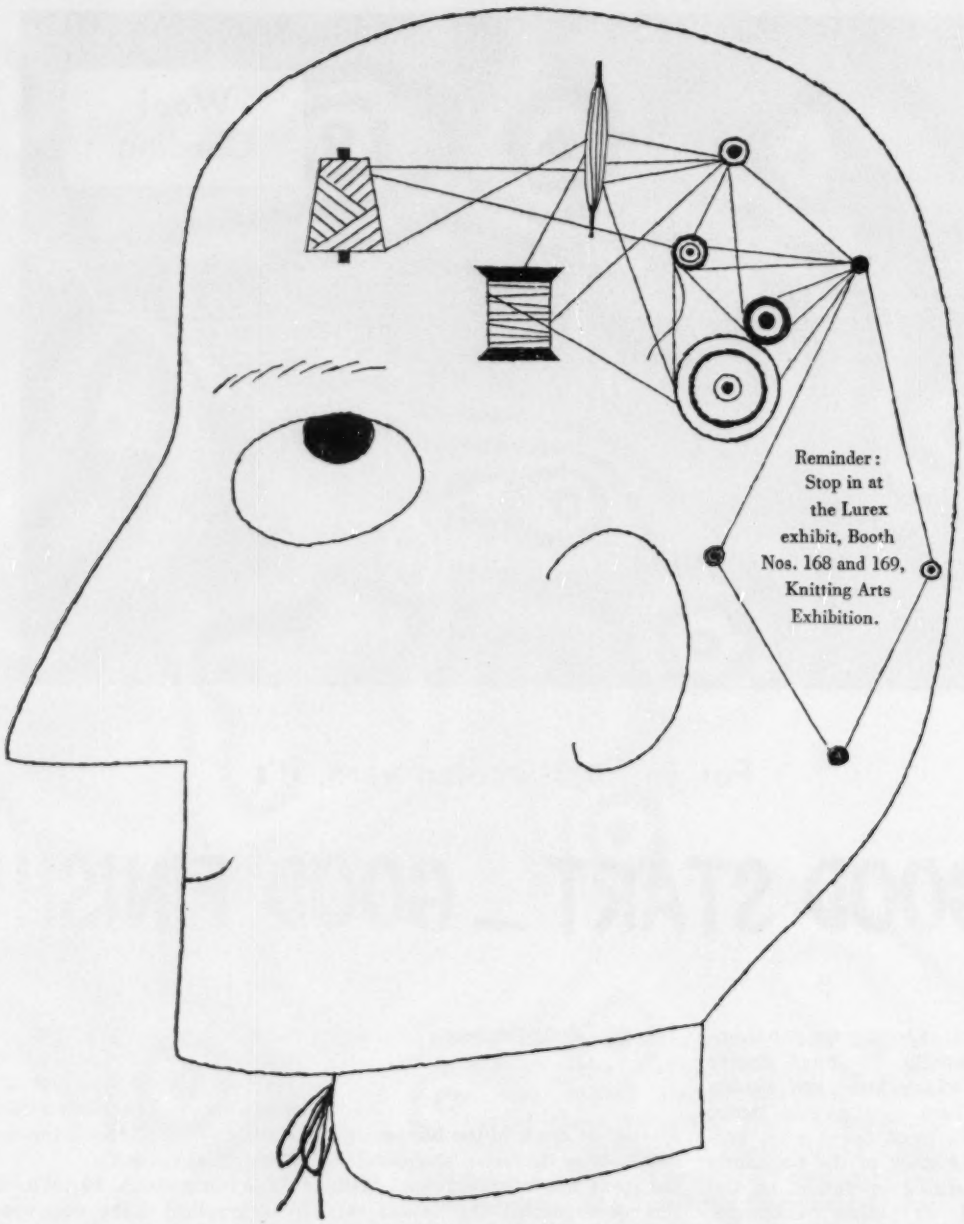
The basic speed of the spike apron when the hopper is full should be as slow as is consistent with maintaining proper weight at the scale.

The speed of the bottom carrier apron in the hopper should be such that there is a gentle rolling action of the stock, for better blending.

The Evener Comb. The purpose of the evener comb is to provide uniform, lump-free loading of the spike apron, both laterally and longitudinally. The setting of the comb to the apron is one of the most important in woolen carding, because of its effect on the weight of the final roving.

The comb should be set as closely as practical to the spike apron—if possible with a clearance of as little as ¼ inch from the points of the spike apron pins, depending on the stock and the interval between dumps of the scale pan. Close setting of the comb achieves the objectives of keeping the pieces of stock delivered to the scale pan as small as possible, for more accurate weighing, and keeping the stock uniform across the spike apron.

As the setting of the comb becomes closer, the length of time required to fill the scale pan of course becomes longer, and the aim should be to make the setting



The thread of the story is LUREX®

...and the reason is—Dobeckmun know-how. A great fund of experience is at your service—a decade of creative and scientific leadership. In the mill areas, specialists are available for consultation in all fields of operation. This wealth of specialized knowledge can be instantly concentrated on developing specialized Lurex yarns for use with any other yarn you have in mind and on working out new constructions to your own specifications. To start the ball rolling, just get in touch with the Dobeckmun representative in your local area.

Lurex, non-tarnishing metallic yarn made only by the Yarn Division of ...

The Dobeckmun Company, Cleveland 1, Ohio • New York: 350 Fifth Avenue • London • Amsterdam

Boston: 43 Leon Street • Philadelphia: 1801 W. Cheltenham Avenue • Charlotte, N. C.: 221 S. Church Street • Chicago: 330 S. Wells Street

such that the maximum practicable length of time is required to fill the pan.

Combing will be improved if the speed of the comb is as high as possible in relation to the spike apron.

Stripping the Spike Apron. Stock may be removed from the spike apron either by a doffer comb or by a cylindrical beater. The former is primarily for use on very long staple fibers, while the latter is standard for short- to medium-length stocks on modern Bramwell feeders.

The beater must be parallel to the spike apron, and set so that its leather lags just touch the pins.

Scale. All the other operations of the Bramwell feeder are auxiliary to the proper operation of the scale. It is essential that the scale be properly aligned, with no hesitancy in dumping at the end of each cycle.

Faulty operation of the scale may be caused by incorrect adjustment of the scale arms, or by the scale pan striking against a part of the machine or other object.

Care should be taken that the pivot shaft of the ball bearing fulcrum is absolutely free. It must never be oiled.

The "hill - and - valley" effect caused by slight irregularities in the dumping cycle, or by side-to-side variation of stock, is averaged out in newer models by setting the scale on a diagonal to the breaker card feed apron. The feed rolls of the card are therefore at any given moment receiving stock from more than one dump. Some mills have obtained the same effect by setting the pushboard at an angle to the card feed apron (see TEXTILE INDUSTRIES, Feb., 1953, p. 128).

Card Feed Table. Proper adjustment of the pushboard stroke has a definite bearing on uniformity of production. Too short a stroke will result in the stock not being held in position for compression, leaving ragged edges across the feed apron. Too long a stroke or too much compression will have an equally adverse effect on uniformity.

Non-uniformity of roving weight is sometimes caused by slippage of the card feed apron, causing stock to be fed to the card erratically. A loose apron is usually the cause of this condition.

Is There to Be a New Textile Industry?

Such a question is particularly appropriate when one realizes that this gigantic industry of ours is only now slowly emerging from a period of depression which has run its course during one of the most prosperous eras in all history. And instead of reading articles entitled "The Fabulous Future," we face such discouraging titles as *Business Week* magazine used a few weeks ago to describe the Textron-American Woolen-Robbins Mills merger — "Can Three Losers Make a Winner?"

Our industry will not gain any real supremacy until it learns that the change it needs is a change in concept — the new concept being that change is not something we do once in a while when a depression in the industry appears, but rather that change is a dynamic force that must always be with us.

We must cease to be an industry that is only satisfied to grind out 80 square print cloth by the mile or brag that we have made the same denim for a hundred years.

We must recognize two things: (1) that a business is created and managed by people and (2) businesses must be creative and set objectives which do not allow them to be solely dependent on vague economic forces or on hunches.

These two points appear so obvious that it is with reluctance that I say I know of very few textile organizations that have faced them in a clear and organized way. This may be provocative but it has always seemed to me that many segments of our industry have neither sought out creative people nor have even encouraged their development — the personnel they generally seek are the protectors of their achievements, the guardians of their looms and dyebaths, the conservators of their assets.

We must start searching for answers to the questions of how we are to meet this challenge of creativity and the necessity for innovation in our industry. It is only through the proper training of those who are capable of creativity and the recognition and encouragement by present management of such people that a satisfactory answer will emerge.

Our textile schools have worked hard to broaden their scopes and objectives. They have succeeded in training men to manage nearly every chemical and mechanical branch of our industry and are constantly raising their standards to this end. This is important — but they must also look for and help train a new kind of manager. How well the school as well as our industry will do in the future depends on the kind of managers you are looking for and training — are they to be dependable robots or creative thinkers?

Everything today indicates that we are on the verge of a new age of expansion, led by the United States but shared by all free people of the world. The President has indicated a national production of 500 billion dollars in ten years. Future markets for both consumer and capital goods should be unparalled in history.

And yet we must soberly ask ourselves whether we are going to share in this growth and prosperity. We will if we learn to project clearly the objectives of our businesses.

We must learn among other things that our major competition is not wool versus some synthetic fiber but it is textiles battling for the consumer dollar against the automobile, television set or an electrical appliance. It is important to recognize who your competitors are. The competitor of the mink coat is not a cloth coat but it is the diamond bracelet or the Cadillac automobile.

When all of us learn to recognize these things, to remember that businesses are created by people who in turn must create customers as well as products, to remember that there is no sliderule for thought or any calculating machine for judgments, only then can we answer the original question and that answer is "There *will* be a New Textile Industry."

From remarks by Milton Harris, head of Harris Research Laboratories, at the 54th annual Philadelphia Textile Institute Alumni Banquet.

THERE IS A DIFFERENCE!

There's a world of difference between the smooth-swinging golfer on the left and the little hacker on the right—his trouble is he's standing too close to the ball after hitting it.

Don't handicap yourself—remember there's a difference between openers, too. A *big* difference, for instance, between the CEN-TENNIAL TEXTILE FIBER OPENER and other openers on the market. CEN-TENNIAL incorporates many unique improvements in their opener. This is the most efficient opener available today—*and the price is no greater!*

How efficient? Listen to this: Mt. Vernon-Woodberry Mills, Inc. makes high-grade hose duck, belt duck, etc. CEN-TENNIAL TEXTILE FIBER OPENERS have been installed in all of their opening lines. All spinnable fiber is retained, breaking strength is improved and neps reduced. Overall reduction of waste is not less than 1%. This amounts to the saving of hundreds of dollars daily.

Among other representative organizations who are equipped with CEN-TENNIAL TEXTILE FIBER OPENERS are West Boylston Manufacturing Co., Joanna Mills Co., Spartan Mills (Beaumont and Startex Divisions) and Swift Manufacturing Co.

You, too, can effect such savings in your mill.

OPENS • CLEANS • BLENDS } COTTON • WOOL • SYNTHETICS

CEN-TENNIAL

COTTON GIN COMPANY

COLUMBUS, GEORGIA

THE TARIFF

what and why

"Free trade, one of the greatest blessings which a government can confer on a people, is in almost every country unpopular."
—Lord Macaulay.

"Free trade is not a principle, it is an expedient."
—Benjamin Disraeli.

By Ringgold Arden

EXCLUSIVE

FEW SUBJECTS in the realm of politics can arouse more furious discussion than the question of tariffs, and this is a constantly recurring subject in our American Government. In President Cleveland's Annual Message to Congress in 1887, he referred to the tariff by saying, "It is a condition which confronts us, not a theory."

That estimate of the situation is as valid today as it was then.

Industries affecting millions of people have grown up over the years around the fact of tariff protection, and whenever a serious proposal is made to withdraw or diminish that protection, the people whose livelihood is affected are certain to set up a clamor. On the other hand, persons who, like Lord Macaulay, look upon free trade as a great blessing, will set up their clamor and heap scorn on what they are pleased to call "the infamy of the tariff."

Some of the most wildly extravagant statements imaginable have been made by these ardent free traders, and just now, when this subject of tariff revision is up for serious consideration in the Congress, the free-trade enthusiasts are setting up their usual din, and many persons whose editorial outpourings affect the opinions of large numbers of persons are inveighing against this "iniquity of tariff protection."

Some of these editorial writers stoutly maintain that they are not free traders, but believe in adequate tariff protection, but not excessive protection. This seems to indicate that most of these gentlemen haven't the foggiest notion what they are talking about.

Since this question of tariff protection is absolutely vital to the American textile industry, a reasonably dispassionate discussion of the subject might be useful. We will try to keep this discussion neither pro-tariff nor anti-tariff, but merely make it a discussion of the condition which confronts us:

Some years ago a politician raised a storm of bitter and indignant protest by stating the perfectly obvious truth that "the tariff is a local issue." It is, and always has been, a local issue. If it protects you, you like it. If it hurts you, you hate it.

As a practical means of raising revenue for a national government, a tariff is generally accepted by all parties as a reasonable expedient up to the point where it begins to diminish or exclude certain imports for the benefit of domestic manufacturers and their employees.

What is termed a tariff for revenue only was accepted by all sides when it was first adopted as a revenue producer in this country. Our government was weak and our people thoroughly averse to paying any taxes they could get out of. The income tax had been forbidden by the Constitution, and property taxes were regarded as the prerogative of the states and their sub-divisions. An excise tax was practically impossible of collection. The Whiskey Rebellion had rather definitely established the difficulty of imposing excise taxes.

A tariff for revenue on goods which were regularly being imported was not only a logical arrangement to get money to run the Federal Government, but up to a certain point, it was not a particularly unpopular tax so long as it was a general and uniform levy designed solely to raise needed money.

Tariff imposts have been a popular form of taxation with governments from time immemorial. There was probably no nation that ever had any commerce that did not try to impose this form of taxation at one time or another. As Disraeli points out, free trade is an expedient, and a country which desires to encourage imports by abandoning tariffs, and which has other means of revenue raising at its command, may easily decide that free trade is a profitable expedient.

In the United States it was soon found that if any worthwhile industrial developments were to be made, the struggling new industries had to have some sort of protection against the old, well-established, prosperous industries of European countries, including England, which needed raw materials from America and had to pay for them with finished goods.

In any discussion of international trade, it must never be forgotten that the very backbone of such trade is the necessity to buy, rather than the

THE SIZE AND COST OF

CARTER TRAVELERS

IS SMALL...

THE VALUE OF

IS BIG...

When you specify CARTER TRAVELERS, you insure smooth running work—finer, stronger yarns—simply because there is no substitute for QUALITY. With CARTER TRAVELERS you not only get top quality materials and workmanship, but the assured performance of a product manufactured under rigid scientific control. VALUE is built into CARTER TRAVELERS under the careful supervision of the staff of a modern metallurgical laboratory.

Whether it is a routine requirement or a highly specialized job, you will always get more-for-your-money value with CARTER TRAVELERS... manufactured in the heart of the textile South and delivered with prompt, dependable service.

CARTER TRAVELER COMPANY

Division of A. B. CARTER, INC., GASTONIA, N. C.

Manufacturers of The Boyce Weavers Knotter

REPRESENTATIVES

R. A. Haynes, Special Representative.....114 W. Fifth Ave., Gastonia, N. C.
W. L. Rankin.....501 S. Chester St., Gastonia, N. C.
D. E. Phillips.....406 LeGrand Blvd., Greenville, S. C.
P. L. Piercy.....128 Hudson St., Spartanburg, S. C.
J. R. Richie.....3014 Lewis Farm Road, Raleigh, N. C.
J. K. Davis.....P. O. Box No. 129, Auburn, Ala.
C. E. Herrick.....44 Franklin St., Providence, R. I.
Hugh Williams & Co.....47 Colborne St., Toronto 1, Canada

desire to sell. When people have to buy things they will make shift to pay for them, and while they may raise a great outcry about the injustice of the conditions imposed, they will still pay.

We have just seen that with respect to the price of coffee, and we saw it about 25 years ago with regard to the price of rubber. When a cartel got control of the rubber crop and ran the price of rubber up from about fifteen cents a pound, to three dollars, the American people protested mightily, but they did not stop buying rubber, because they had to have it.

When the price of coffee zoomed upward last year, there was great weeping and wailing about the frightful cost of it, but no diminuition that we noticed in the consumption. At any time, the price of coffee could have been pushed down in two or three weeks to a reasonable level by the simple expedient of people refusing to drink coffee if they considered it too expensive, but so long as coffee was considered a necessity and we had to have it, we paid what we must to get it. This is always the controlling factor in international trade.

So long as the United States existed in a raw materials economy, the factories of Europe required the products of our farms, forests, and mines, and in obtaining these commodities they had to dispose of finished goods to get the dollar exchange for making these other purchases, and in the process of disposing of such merchandise they could maintain prices which would completely destroy our native industry.

We witnessed the same situation a few years ago when Hitler was rearming Germany and had to have certain raw materials. The Germans were selling typewriters in South America for about $12, and other salable manufactured goods at proportionate prices. Naturally, no South American manufacturer could possibly have competed with such cutthroat prices, dictated not by manufacturing costs, but by purchasing necessity.

The desire to sell sometimes does lead to cutthroat competition by the practice of a pleasant custom known as "dumping." Manufacturers producing a surplus in one country and reluctant to demoralize their normal markets by cutting prices to dispose of the surplus will frequently dump it in some convenient place, and often this dumping serves a double purpose, because it not only gets rid of an embarrassing surplus, but the sale of it below the cost of production helps to cripple competition in the country where the dumping is done.

Therefore, to protect domestic industries against economic storms of this sort, resort is made to what is known as a protective tariff, and at this point the hue and cry is raised against this practice by those who are adversely affected by it.

At the beginning of the 19th Century the invention of the cotton gin had completely revolutionized the production of textiles. Millions of virgin acres in our southern states were available for cotton planting, and the whole world offered a market for the cheaper yarns and fabrics of the new power machinery developed in England. These southern states therefore embraced a cotton economy founded on slave labor. The market for this economy was almost entirely in Europe, and the cotton was sold for the particular currency of the country where the sale was made, and most of it was sold in England.

The sellers of cotton naturally wished to use this money for the purchase of finished goods which they intended to ship to the United States. These goods were not only better and cheaper than similar goods made by struggling new industries in the United States, but they could be bought with the money that the cotton sellers had and could most profitably use for the purchase of goods in the country where the money was issued.

It was perfectly natural that these people would bitterly resent any discrimination against them in the tariff. The fact that protective tariffs were designed to promote manufacturing in the United States, and could promote this in the South just as readily as in the North, was beside the point. The people of affairs in the southern states did not want to engage in manufacturing. The system of raising cotton and shipping it abroad suited them much better.

On the other hand, New England possessed a thin, rocky, and unrewarding soil. There was not even enough good land in all New England to support a sizeable population, so that the New Englanders early turned to commerce as a means of livelihood. They became shipbuilders, and their famous clipper ships called at every port on earth. These ships hauled slaves from Africa to the southern states, and cotton from those states to European ports.

Some of these New England ships engaged in the whaling industry, which was tremendously profitable for a number of years, but this was eventually destroyed by the introduction of kerosene. It was just as natural for the New Englanders with no agricultural possibilities to turn to commerce and industry as it was for the southerners with their boundless fertile acres to turn to agriculture.

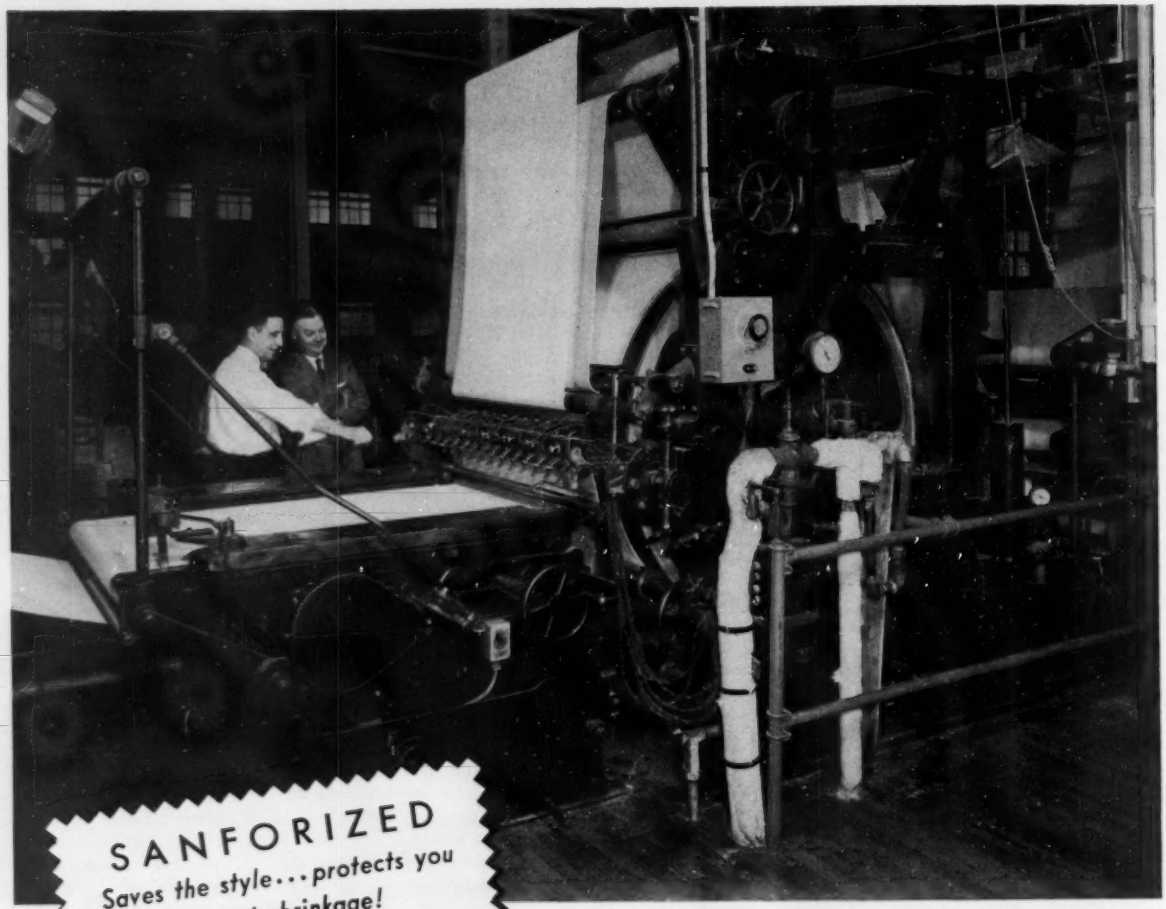
The tariff therefore became a local issue. If your livelihood depended on it, you defended it fanatically. If your pocketbook was injured by it, you fought it with equal fanaticism.

One great national issue was involved, however, and that was the question of whether the United States should remain forever in a raw materials economy or whether it should balance agriculture with industry and achieve a well-rounded economy without which it could never be anything but a weak and helpless plantation, utterly dependent upon outsiders for most of the necessities and conveniences of life. The southern states during the Civil War learned a bitter lesson about the helplessness of an agricultural country deprived of its supply of manufactured goods.

It is not necessary that a nation be at war to have its commerce interrupted. Older people can well remember how the United States was starved for chemicals and dyestuffs before we were involved in the First World War. We were utterly dependent on Germany for dyestuffs, and for many of our most important chemicals, when a war between France, England, and Germany completely cut off our supply of these vital materials. It was not long after the United States set up business as an independent nation before its statesmen began to realize the necessity of a manufacturing industry if the new country was ever to be really independent and able to successfully defend itself against foreign aggression.

Far back into Colonial times there was a disparity in the wages paid in Europe and America. Adam Smith pointed out that one of the compelling reasons for immigration to the Colonies was the higher wages paid. At that time an English workman of average skill was paid 20 pounds a year, or approximately $100. A man of less skill in the Colonies would receive 30 pounds a year, and his living costs were much lower than they would be in England.

An American company, therefore, desirous of going into the manufacturing business had to pay 50 per cent higher wages for largely unskilled employees than the European counterpart had to pay for highly skilled and efficient workmen. This wage gap has widened constantly, and



SANFORIZED
Saves the style... protects you against shrinkage!

by Cluett, Peabody & Co., Inc.

Pictured above is one of the Duplex Compressive Shrinking ranges employed by Cluett, Peabody & Co., Inc. in its bleachery at Waterford, N. Y.

Shown in operation is one of **Huyck's *new* Compressive Shrinkage Blankets** -- so advanced in design, and pre-conditioned in manufacture, that it

- ***requires no break-in time***
- ***lasts longer***
- ***minimizes costly reprocessing***
- ***assures smooth finish***

Equally important... **Huyck's *new* Compressive Shrinkage Blankets** are precision-finished to proper operating thickness and hold to specified dimensions, requiring far fewer machine adjustments.

Huyck welcomes the opportunity, and readily accepts the responsibility, of serving as a source-of-supply to Cluett, Peabody & Co., Inc. -- and to its licensees whose fabrics carry the world-famous "Sanforized" trade-mark.

F.C. HUYCK & SONS
Rensselaer, New York

KENWOOD TEXTILE PRODUCTS

A Product of the Huyck Quality Development Program

whether the tariff had anything to do with it or not is beside the point. It is the fact of its existence and not the reason for it which is important.

As soon as any serious effort was made to start manufacturing plants in the United States, the need for tariff protection became apparent. A new business, with unskilled employees getting high wages, faces a gloomy outlook if competing with old established concerns manned with skilled employees getting lower wages. The statesmen of that day were therefore early confronted with this condition which would not yield to any theories in opposition to it. The United States must either remain purely a producer of raw materials, or find some means of enabling its infant manufacturing industries to survive and develop.

These industries of course grew out of infancy and soon became giants. Today many of them are super-giants, but a giant can bleed to death just as readily as a baby if blood is taken out at enough places. Certainly, the American textile industry today is a gigantic thing and perfectly able to take care of itself against any sort of reasonable competition. What, however, constitutes reasonable competition?

The New England cotton mills 30 years ago began to find that they could not compete with southern cotton mills. There was probably less difference between the New England wage scale and that of the South at that time than the old difference between the American scale and the English in 1800. The New England mills were hopelessly handicapped, however, with labor union featherbedding, and that made their cost of operation so much higher than that in the South that most of the mills disappeared from New England.

If this moderate difference in operating costs was enough to almost completely destroy the New England cotton textile industry, how would the American industry as a whole fare against foreign competition where the labor cost in the United States is not 25 to 50 per cent more than the foreign labor cost, but from three times to 20 times as much? Textile mill wages in England are about 39 cents an hour, and in Italy around 34 cents an hour, with other European countries filling in between. The average American textile mill wage is said to be about $1.37 an hour, or somewhat higher. Our wages are therefore about three and one-half-times the British wages, and four times the Italian wages.

The European textile industry was built for export purposes. The British Empire was literally built on the British textile industry, and at one time Britain alone operated 56 million cotton spindles. A number of continental countries have many spindles, and this is export spindlage, provided for the purpose of supplying foreign demands.

It seems fairly obvious that there will be a tremendous discrepancy between the cost of European goods and the American equivalent, and if the American mills are to stay in business, some device must be employed to equalize this difference in the cost of textiles. This device is the tariff.

The individual has no thought of patriotism when out shopping. A woman buying fabrics for her home is not interested in where they came from, but entirely concerned with quality and price.

The management of a textile mill in the market for equipment and supplies is just as likely to buy cards from England or spindles or dyestuffs from Germany, as to get these from an American manufacturer if the price or quality, or both, are more attractive in the foreign goods. It is impossible to set up a voluntary restriction on the consumption of imports.

If there is to be a restriction, it must be imposed by the government, and so we have a protective tariff or we don't have certain industries which require protection.

Let's see what a protective tariff is anyway. If the textile industry is concerned with competition from Europe, a certain tariff will equalize the difference in price between American and European goods. This tariff, however, would be as nothing where Japanese goods are concerned. The average Japanese textile mill wage scale is said to be the equivalent of 13.6 cents an hour in American money.

Incidentally, it is said that about 85 per cent of the Japanese cotton mills were bombed out by us during the war, and we have since, at the expense of the American taxpayer, rebuilt these mills with new and modern equipment, better than we have in most of our own mills in the United States. The Japanese manufacturers are therefore not waiting to dump cheap, shoddy, second-class goods into our market, but are ready to dump cheap, high-class goods into it.

With thoroughly new, completely modern mills, and skilled help working for less than 14 cents an hour, the Japanese industry can establish prices which would soon drive numbers of our mills completely out of business. Japan is an exporting nation and it *must* export, and it *has* to buy in foreign markets.

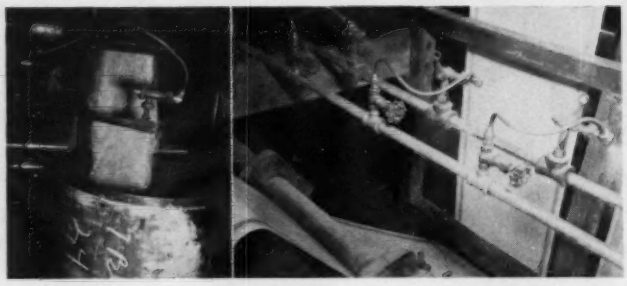
It would be a godsend to the Japanese to have the American textile market thrown open so that they could build mill after mill to supply this market, and as each new mill was built, some American spindles would go onto the junk pile. A tariff adequate to protect us from Japanese textiles would be utterly prohibitive with respect to Europe, and would result in an effectual embargo.

There is another interesting aspect to this Far Eastern situation. We understand that the average wages of employees in textile mills in India is six and one-half cents an hour, or a little less than half of the Japanese wages. The textile employees in India do not seem to be as skilled as the Japanese, and Indian mills are not in as good physical condition, but India has plenty of labor and a great many immensely rich individuals who could easily finance new textile mills if a good market for their products should be opened up.

Some of our Canadian friends contend that their worst scourge is competition from India, which is a part of the British Commonwealth of Nations, and is therefore entitled to preferential tariff treatment in Canada. When you are paying people $1.37 an hour to run your machinery, and somebody else is paying less than seven cents an hour to run the same machinery, your future has been cut off and thrown away.

Montaigne remarked, "Nothing is so firmly believed as what we least know," and it is quite possible that he made this remark about some critics of the French tariff laws. Certainly, an incredible amount of nonsense has been written by critics of the American tariff laws, and the less the writer seems to know about his subject, the more nonsensical he becomes. Unfortunately, this nonsense is read by millions of people who don't realize that the writer hadn't the slightest notion of most of what he was talking about, and was merely parroting criticisms voiced by other people who didn't know anything about it either.

One of the most indestructible absurdities advanced in these arguments against the tariff is the contention that we should have a protective tariff, but that it should be just high enough to equalize the difference in manufacturing costs between our country and the country that wants to export to us. Anybody writing such drivel certainly knows



Moisture Applied Close-Up

A mill-designed moistening system has been installed at Stevens Linen Associates, Webster, Mass., for the purpose of providing maximum pick-up by stock, yarn, and fabric.

The system was installed because of the very high moisture requirement of flax for proper running.

At left, one of the spraying units is shown as it is applied to a draw frame delivery. All spinning stages are equipped with these nozzles which are fed from an elevated storage tank containing a mild solution of a wetting out agent to assist in spinning.

Calender, at right, is also fitted with the spray attachments.

that Solomon is dead and ought to know that there has never been anybody else with wisdom enough to institute such a system, and that if we did attempt to institute it we would make enemies of every nation on earth.

We would have one tariff rate for England and another for each other European country, and entirely different rates for Japan and India and any other countries with low wage rates and an eager desire to swap what they could make in the United States for what they can't make. We then must endlessly keep changing these rates for every country as experience shows whether they are protecting us or not.

Another one of these ridiculous arguments is that the tariff permits some happy manufacturer to dip his hands in the pockets of the American people to garner fabulous riches. Anybody who knows anything about any kind of business, knows that prices over any reasonable period of time are determined by competition. If different sections of this country compete with each other and one can undersell the other, the one which is undersold loses the industry that can not meet competition.

If we raised a tariff wall through which not even a spool of thread could pass, some American mills would still go bankrupt because they couldn't meet the competition of other American mills, and the tariff could afford them no more relief than a perusal of the telephone directory.

If American mills have to compete with foreign mills which can undersell them, they must go out of business. No manufacturer is going to do any pocket picking for any considerable length of time whether the tariff is on his side or not. Anybody who knows anything about business knows that anything which is showing a profit attracts competition like honey draws flies, and in a very short time competition has got the price down as low as it can go and keep an industry out of bankruptcy.

These frantic critics of the tariff seem always to be perfectly convinced that in some magical way this country can increase its prosperity by destroying some of its principal industries. They never put it this bluntly, but always euphemistically speak of the blessings of increasing our foreign trade. They overlook the fact that trade is a two-way street, and that every time a foreigner sells something in this country, he has got to buy something sometime, unless he wants to frame his money as a keepsake.

The foreigner is therefore interested in buying in this country either foodstuffs and raw materials, or some type of manufactured goods not made in his own country or favorably available from some other country besides ours. This narrows the foreigners' buying possibilities to very few things besides foodstuffs and raw materials.

Europe makes practically everything that we make, and can make it cheaper. What the Europeans require is a large and dependable supply of something to eat and of raw materials from which to make manufactured goods, and they, like we, are anxious to buy these things as cheaply as they can. We are therefore right back where President Cleveland found himself, facing the same old condition and listening to the same crackpot theories about how to dissipate this condition so that it no longer exists.

The American people over a period of years have become enormously prosperous. Whether the protective tariffs have had anything to do with that or not is beyond the scope of this discussion, but the fact of this prosperity means that people are not willing to work in this country for wages that other people are delighted to get in other countries. The statesman faced with this condition has therefore got to make up his mind which American industries can be most profitably destroyed if we are going to tinker with this question of a protective tariff.

Just how many industries will be destroyed is problematical, because, after all, there is a definite limit to the desire of foreigners to purchase our frightfully expensive goods when they can make them at home or buy them from neighbors more economically.

Maybe in the long run, over the next century or so, this country might be a whole lot better off if we now destroyed a few of our leading industries and mutilated others beyond recognition. This question is also beyond the scope of this discussion. We are merely trying to point out circumstances as they exist, and are voicing no arguments about the desirability of raising or lowering a tariff insofar as the ultimate welfare of the United States of America may be concerned.

We have very strong opinions on this subject, but we are not dragging them out now. We are simply trying to present a problem factually and sanely.

Too much of the stuff we read in newspapers is written by people who quite patently know nothing about what they are discussing.

When it rains - it shines!

and so do cottons and rayons dyed with

NATIONAL CARBANTHRENE® BRILLIANT VIOLET RK

DOUBLE PASTE

Rain or shine, this National bluish-violet anthraquinone vat rates exceptionally high for its wet fastness and light fastness. It's one more in a series of interesting National Vat Dyes with exceptionally good all-around fastness properties.

National Carbanthrene Brilliant Violet RK Double Paste scores high on all AATCC tests . . . produces attractive shades, alone and as a shading color . . . can be resin finished with little change of shade and no loss of fastness. It well merits a "Color-fast Vat Dye" tag at the point of retail sale!

To get better acquainted with this versatile National Vat, phone our nearest office for a shade card (Bulletin #396) and a working sample.

NATIONAL ANILINE DIVISION
ALLIED CHEMICAL & DYE CORPORATION
40 RECTOR STREET, NEW YORK 6, N. Y.

Boston Providence Philadelphia Chicago San Francisco
Portland, Ore. Greensboro Charlotte Richmond Atlanta
Los Angeles Columbus, Ga. New Orleans Chattanooga Toronto

Allied Chemical

FOR TOP QUALITY SHUTTLES...

Look for these Trade Marks

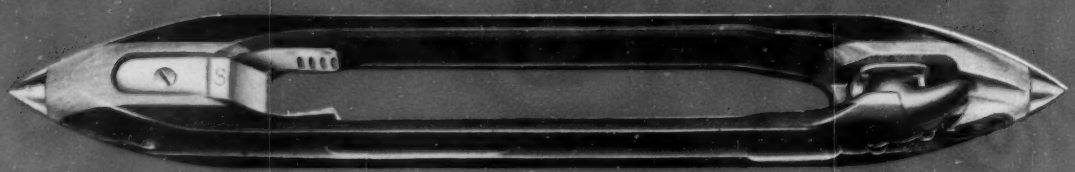
QUALITY

Stehedco

CONTROL

TEMPERED

STEHIDE



ANOTHER SOUTHERN EXCLUSIVE... *QUALITY CONTROL*

A few years ago the Southern Shuttles Division started a system of Statistical Quality Control. A new approach to an old problem, it is based on the premise that no two items can ever be exactly alike. This system sets up allowable tolerances. Quality is controlled through all the manufacturing processes rather than by inspection alone of the finished product.

Setting up this system for all incoming materials and manufacturing operations required establishing exacting specifications, permissible tolerances, retraining of inspectors and considerable statistical analysis.

After years of intensive work, this system is now functioning smoothly, and with pride and confidence Southern now identifies its products with the Quality Control symbol along with its well known Tempered and Stehide trade-marks. One more feature pioneered by Southern to give you greater value and dependability in shuttle performance.

SOUTHERN... The Largest Single-Unit Shuttle Plant in The World

SOUTHERN SHUTTLES

A DIVISION OF STEEL HEDDLE MFG. CO.

PARIS, GREENVILLE, S. C.

It's Southern for Service and Delivery

Tempered Dogwood Shuttles • Duraweld Picker Sticks • Supreme Reeds

Hard Chrome Electro Plating • Castings • Stampings

1-R-2

April 25-29 will be

Knit Goods Week

in Atlantic City

KNITTING ARTS EXHIBITION
Auditorium, April 25-29

NAHM ANNUAL MEETING
Hotel Claridge, April 25

HOSIERY INDUSTRY CONFERENCE
Hotel Claridge, April 25-26

UNDERWEAR INSTITUTE ANNUAL MEET
Chalfonte-Haddon Hall, April 25

NKOA GATHERING AND RECEPTION
Hotel Shelburne, April 27

WITH 207 SUPPLIERS to the knitting industry contracting for space as of March 1, when this issue of TEXTILE INDUSTRIES went to press, and an extensive attendance promotion program under way, the 1955 Knitting Arts Exhibition to be staged in Convention Hall of the Atlantic City, N. J., Auditorium during the week of April 25-29 is expected to set a high mark in interest for a record or near-record attendance of U. S. and foreign knitting industry executives.

So that the knitting mill executives planning to attend the show might have some idea three weeks before the show of what will be exhibited and be able to make plans for the most efficient utilization of their time while in Atlantic City, TEXTILE INDUSTRIES presents in this special section (pages 161-191) the following:

1. General information about the show and other events scheduled for Atlantic City during the week;

2. A handy alphabetical list of exhibitors and simplified floor plan of the exhibition hall (on facing pages for your convenience in locating supplier friends);

3. A complete preview of the show, including names and addresses of exhibitors, what they will exhibit, and who will be in attendance at the booths to show you new developments, give you new ideas for streamlining production, and to show you the new technological advances, new fibers, yarns, and fabric developments.

Also, many new developments to be displayed for the first time at this exhibition are described in the "New Equipment Section" of this issue (pages 217-223). TI's editors will be on the lookout for others at the show, and these will be announced in later issues.

Show Hours. Doors to Convention Hall will open to visitors at Noon on Monday, April 25, opening and closing daily according to the schedule on page 169. 1 p.m. Friday, April 29, are the time and date set for spectators to vacate the exhibition area.

Admission. Tickets for admission are free to knitting industry personnel, but the general public is not invited. If you do not already have yours, write one of the following: (1) Any exhibitor listed in the directory which begins on the next page; (2) Albert C. Rau, Campbell-Fairbanks Expositions, 322 Park Square Bldg., Boston, Mass.; (3) Editor, TEXTILE INDUSTRIES, 806 Peachtree St., N. E., Atlanta 5, Ga.

Housing. If your hotel reservations have not already been made, you should immediately send your requirements directly to Housing Bureau, 16 Central Pier, Atlantic City, N. J.

COMPLETE DIRECTORY

tells WHO is exhibiting

WHERE you will find them

WHAT will be on display

WHO will be there to greet you

(Begins here and continues through page 183)

ABERFOYLE MFG. CO. 411
Philadelphia, Pa.
Exhibiting: Cotton yarns — natural, bleached, and dyed; special process weaving yarn; Durene; NyFoyle; Neophil; Orlon; nylon; Dacron; "Sixty-Three" Dacron and Egyptian cotton.
J. P. Holt, pres.
J. S. Kenrick, vice-pres.
E. J. Neal, vice-pres.
A. S. Wilson, Jr., sales mgr.
H. M. Detwiler
A. Huston, Jr., sales
J. A. Holt, sales
R. F. Morris, sales
J. J. Neil, sales
W. Brown, sales
D. Gott, sales
T. S. Byrne, sales
F. G. Miller, sales
W. Crenshaw, sales
W. G. Vetterlein, sales

ACROMETAL PRODUCTS, INC. 374
Minneapolis, Minn.
Exhibiting: New line of precision aluminum take-up bobbins.
F. J. Bieber, gen. mgr.
H. R. Lane, east. sales dir.
T. R. Polglase, midwest. sales dir.

42nd KNITTING ARTS EXHIBITION

List of Exhibitors and Floor Plan of Exhibition Hall

Aberfoyle 411
Acrometal 374
Adelaide Mills 146
Ainslie Knitting 55
Air-Perme-Ator 46
Allendale Co. 277
Allentown Bobbin 150
Allied Chemical 559
American Aniline 390
American & Efird 387
American Bemberg 423
American Dyestuff Reporter 213
American Lava 215
American Safety Table....339
American Schweiter 186
American Thread 403
American Viscose 409
America's Textile Reporter 153
Amsco Packaging 121
Argonne Worsted 277
Arrow Needle 510
Atlantic Rayon 327
Joseph Bancroft 564
Bearing Products 156
Beemer Engineering 210-A
Bemis Bag 80
Boger & Crawford 530
S. Bolder & Co. 63
Brant Yarns 146
Brinton Machine 231
Burlington Engineering ... 17
Buskirk 140
Cannon Mills 505
Carbide & Carbon 435
Caron Spinning 422
Celanese Corp. of America.395
Champlain Spinners 499
Chandler Machine Co. 542
Chemspun Yarns 348
Chemstrand Corp. 186
Clark Door 49
Cloverleaf-Freeland 37
Cocker Machine 88
Comer-Avondale Mills.....375
Cotton Yarns, Inc. 141
Crawford Co. 85
Crawford Mfg. Co. 389
Cress Cotton Mills 543
Cummings-Landau 203
Cutting Room Appliances..275
Daily News Record.....139
Davison Publishing Co. .. 61
Deering Milliken 81
Dixie Mercerizing 527
Dobeckmun Co. 168
Dubied Machinery 272
Duffy Silk Co. 441
Duplan Corp. 336
DuPont 109
Eastern Yarn 348
Easthampton Rubber Thread 102
Eastman Chemical 303
Eberly, Inc. 538
Edley Machine 434
Emerson Apparatus 297
Emsig Mfg. Co. 120
Engineered Plastics 44
Errich International 54
Ewing-Thomas 114
Fancourt Co. 515
Feustel, Inc. 145
Fidelity Machine 243
Firestone Industrial Prod...277
Firsching & Son 282
Fletcher Works 287
Foster Machine 82
Franklin Process 444
Garment Finishing 502
Gastonia Combed Yarn....141
Ginsberg Machine 266
Globe Dye 377
Grove Nylon 331
Harding 57
Harriet-Henderson 117
Hayssen 555
Heany 19
Heineman Corp. 499
Heminway & Bartlett.....155
Hemphill 163
Henrici Laundry Mach.... 41
Herr Mfg. Co. 38
Hess, Goldsmith 75
Hoffner Rayon 453
Alfred Hofmann 355
Hofmann Needle Works...355
Hohenberg Co. 157
Hosiery and Underwear Review 51
Hosiery Industry Weekly..213
Indian Orchard 116
Industrial Dryer 151
Interstate Yarn 432
Loyal T. Ives 344
Jacquard Knitting 341
Johnston Mills 540
Jordan Mills 509
Kahn & Feldman 419
Kaumagraph Co. 549
Kearny Manufacturing 370
Kennett Equipment 138
Keystone Dyeing 263
Kidde Manufacturing 489
Kimball Co. 399
Klander-Weldon-Giles 50
Klumpp Co. 503
The Knitter 514
Laconia Cooper Co. 455
Lassiter Corp. 421
Latta, Currier 74
Laurel Soap 547
Leatex Chemical 3
Legge, Percy A. 277
Leon-Ferenbach 380
Liberty Throwing 501
Lieberknecht 391
Lingerie Merchandising .. 53
Edward J. McBride 26
Malina Co. 327
Markem Machine 295
Marvel Specialty 208
Masurel Worsted 563
Merrow Machine 264
Metlon Corp. 148
Meyers & Co. 305
Miller Wrapping 121
Milton Machine 335
Modern Textiles Magazine 78
Muller & Co. 466
Narrow Fabric Co. 401
NAHM ..... Stage
National Bundle Tyer 330
NKOA ..... Stage
National Vulcanized Fibre 470
New York Pressing Machinery Corp. 384
O'Brien Yarn 293
Onyx Oil & Chemical 346
Ordnance Gauge 199
Panamerican Publishing ..468
Paramount Textile 313
Pernick Co. 343
Philadelphia Dye Works ..369
Philadelphia Metal Drying Form Co. 190
Photobell Sales 106
Pola Enterprises 561
Precision Knitting 552
Proctor & Schwartz 557
Prosperity Co. 159
Queens Machine 216
Radio Corp. of America...379
Reece Corp. 427
Reiner, Inc. Robert..... 66
Reliance Electric 437
Richmond Oil Soap 202
Rochambeau Worsted 277
Royal Cotton Mill 104
Royersford Needle Works..461
John J. Ryan 146
Sauquoit Silk 382
Scholler Bros. 463
Scott Testers 297
Scott & Williams 231
Scovill Manufacturing 436
Sellers Manufacturing 104
Shell Oil 76
Simplex Packaging 121
Singer Sewing 289
Smith, Drum & Co. 129
Somerset Knitting 158
Sonoco Products 507
Southern Textile Machinery 205
Specialty Manufacturers...261
Speizman Co. 170
Stampagraph Co. 147
Standard-Coosa-Thatcher ..317
Steele Canvas Basket..... 40
Sterling Engineering 149
Stewart-Warner 504
Stop-Motion Devices 193
Stretch-Tex 146
Supreme Knitting Machine 451
Synfoam Yarns 327
Synthane Corp. 372
Synthetic Yarns 327
Telesonic Corp. 36
Templon Spinning 348
Textile Age 400
Textiles, Inc. 367
Textile Industries 562
Textile Machine Works ..510
Textile World 291
Threads-Inc. 64
Tompkins Bros. 449
Torrington Co. 301
Tricoma 438
Tubular Textile Machinery Corp. 166
Turbo Machine Co. 59
Turner Transfer 28
Twitchell, Inc. 143
Underwear Institute.....Stage
Union Special Machine...458
United Elastic Corp. 102
U. S. Hosiery 482
U. S. Rubber (textile) 280
U. S. Rubber (latex) 315
Universal Winding 219
U. S. Testing 462
U. S. Textile Machine....178
Utica Novelty 160
Valdese Mfg. 545
Veeder-Root 537
Venango Engineering 554
Victor Ring Traveler 42
Virginia-Carolina Chemical 107
Walton Laboratories 446
Westinghouse Electric 29
Whitin Machine 425
Paul Whitin Mfg. 277
Wildman Mfg. Co. 225
Willcox & Gibbs 353

Acrometal Products continued
C. Steinbeck, ch. engr.

ADELAIDE MILLS 146
Anniston, Ala.
(See Brant Yarns, Inc.)

AINSLIE KNITTING MACHINE CO. 55
Brooklyn, N. Y.
Suppliers of: Flat knitting machines—hand and power; parts for C&F, Dubied, Diamant, and other knitting machines; brushing machines; border or narrow fabric machines; high speed knitted tube machines; fine gauge underwear tape machines; underwear and interlock machines; warp knitting machines.

AIR-PERME-ATOR MFG. CO. 46
Paterson, N. J.
Exhibiting: A large industrial humidifier; warp conditioner; "Therm-Evac" complete air conditioning; office and home type humidifiers.
J. Kohut, Sr., owner
E. Kohut, sales engr.
J. Kohut, Jr., service engr.
R. G. Burr, sales engr.

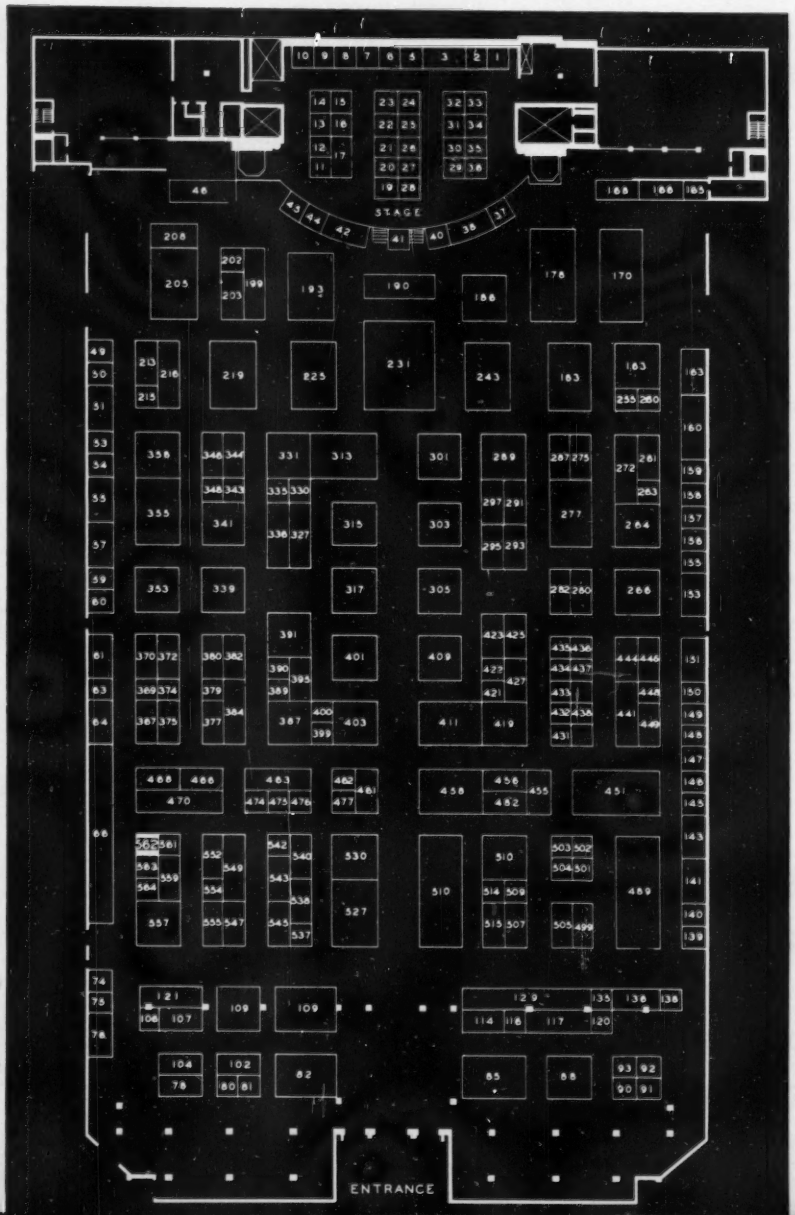
ALLENDALE CO. 277
Centredale, R. I.
(See Percy A. Legge)

THE ALLENTOWN BOBBIN WORKS, INC. 150
Allentown, Pa.
Exhibiting: All types of bobbins and spools for the processing of fine yarns.
H. W. Mack, vice-pres.
H. S. Barnes, sec.-treas.

ALLIED CHEMICAL & DYE CORP. 559
New York, N. Y.
Exhibiting: A new textile fiber of the nylon group.
G. H. Hotte, Dir. fiber sales & serv.
R. E. Ellsworth, mdse. mgr.
S. A. Cooper, sales mgr.
G. Monk, sales rep.
W. Poisson, sales rep.
D. Holsenbeck, sales rep.
N. Baghosian, sales rep.

AMERICAN ANILINE & EXTRACT CO., INC. 390
Philadelphia, Pa.
Exhibiting: Sizes for nylon, including Orthosize, Orthocryl, and PM-90; size for Dacron—Syncryl; coning oils, including Ortholube STS, Orthonyl, Ortholube HT, Ortholube LV, Ortholube LT.
W. J. Duddy, pres.
R. D. McCarty, vice-pres.
L. Kippax, sales rep.
M. H. Silberman, tech. dir.
J. H. Jones, sales rep.
W. A. Moran, sales rep.

KNITTING SHOW
April 25-29
Atlantic City



AMERICAN DYESTUFF REPORTER (publication) 213
New York, N. Y.

AMERICAN & EFIRD MILLS, INC. 387
Mt. Holly, N. C.
Exhibiting: Yarns, including Ban-Lon, the newly developed Stretch Spun Cotton, Ny-Spun Worsted, and blended fibers; also products made from these yarns.
T. C. Smotherman, vice-pres., sales mgr.
R. F. Jessen, asst. sales mgr.
W. H. Suttenfield, vice-pres.
W. S. Montgomery, asst. vice-pres.

AMERICAN BEMBERG NORTH AMERICAN RAYON CORP. 423
New York, N. Y.
Exhibiting: All types of knitted fabrics made of Bemberg and Narco rayon yarns; also, fabrics made in combination with other synthetic fibers.
J. C. Fortune, sales & adv. mgr., Bemberg
R. I. DeVine, sales mgr. North American
L. Nave, tech.
W. H. Six, tech.
J. C. Ashley
V. Bez
J. B. Dunlop

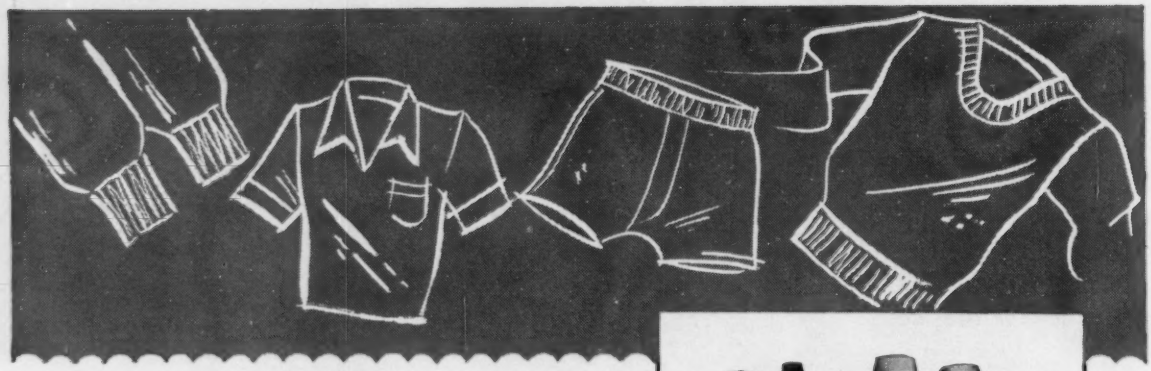
AMERICAN LAVA CORP. 215
Chattanooga, Tenn.
Suppliers of: AlSiMag custom-made thread guides.

AMERICAN SAFETY TABLE CO., INC. 339
New York, N. Y.
Exhibiting: Latest models of Amco individual stands and motor drives for all types of industrial sewing machines.
D. Frankel
J. Frankel
B. Greenawalt
R. Pettit
H. King
J. Baumann

AMERICAN SCHWEITER CO. 186
Whitinsville, Mass.
Exhibiting: The Schweiter Monofil Coner type KEK-PN for throwsters and the "Pineapple" bobbin for the hosiery trade; the Schweiter Vario Coner type KM for all spun yarns.
H. J. Theiler, pres.
H. Badertscher, engr.
S. H. Singer, engr.

THE AMERICAN THREAD CO., INC. 403
New York, N. Y.
Exhibiting: High bulk "Orlon" sweaters; "Agilon" stretch nylon; full-fashioned and seamless hosiery; half-hose; gloves.
C. E. Bowne, vice-pres.
H. Horrocks, vice-pres.
R. Hall, sales mgr. yarn
B. Lavery, ind. sales
W. P. McCullock, yarn sales
N. Blackledge, prod. mgr.
J. Buscher, yarn sales
D. Bliss, yarn sales
J. Connorton, mdse. mgr.
E. Pretty, ind. sales
E. Roller, ind. sales
F. Causey, yarn sales
H. Pennewell, yarn sales
H. Greeson, yarn sales
P. Breor, yarn sales
D. Howell, yarn sales
J. Christian, yarn sales
B. McBee, yarn sales

AMERICAN VISCOSE CORP. 409
New York, N. Y.
Suppliers of: Rayon, acetate, Vinyon, and Filatex elastic yarns.

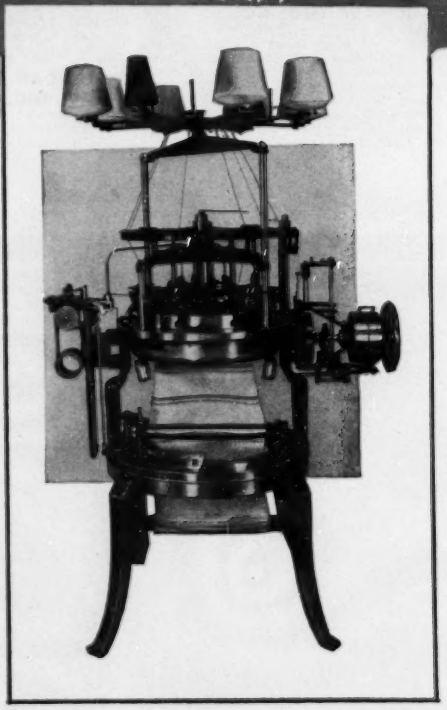


a regular "ONE-MAN KNITTING MILL"

With the minimum of attention, this versatile, high-production machine can be set to turn out many varieties and combinations of stitches (one by one or two by two) striped fabric of unlimited patterns . . . English or round welt, French or tubular welt and clearing course or draw-thread.

Operates as a single feed machine or in any combination of feeds to produce fabrics for cuffs, sweater bottoms, collarettes, underwear, outerwear, sportswear and beachwear . . . Furnished with belt or individual motor drive.

For complete information on the Wildman Rib Fabric Striping Machine, write us today.



WILDMAN RIB FABRIC STRIPING MACHINE

WILDMAN *makes the machines that tend to their own knitting.*

WILDMAN MFG. COMPANY, NORRISTOWN, PA.

Manufacturers of: FULL FASHIONED HOSIERY MACHINES; CIRCULAR MACHINES FOR OUTERWEAR, UNDERWEAR, SPORTSWEAR, TRIMMINGS; STOP MOTIONS

AMERICA'S TEXTILE REPORTER (publication) 153
Boston, Mass.

AMSCO PACKAGING MACHINERY, INC. 121
Long Island City, N. Y.
Exhibiting: Working models of various packaging machines, including the Amsco automatic rotary bag sealing machines for the sealing of cellophane and polyethylene bag tops; an Amsco conveyor for delivering bags to the sealing equipment; the Amsco automatic power jaw bag sealing machine with automatic label attachment for sealing of bag tops and simultaneously applying a "header" label over the bag top; the Corley Miller Model BL machine for wrapping "hard to handle" textile items in "hard to handle" wrapping films; the Simplex automatic bag making machine for fabrication of cellophane bags, and automatic labeling of same.
E. E. Messmer, pres.
J. D. Sylvester, vice-pres.
J. D. Keenan, Jr., sec.
G. G. Cignoli
S. Watson
G. Widersheim
J. Kelly

ARGONNE WORSTED CO. 277
Woonsocket, R. I.
(See Percy A. Legge)

ARROW NEEDLE CO. 510
Manchester, N. H.
Suppliers of: Latch type knitting machine needles.

ATLANTIC RAYON CORP. 327
Providence, R. I.
Exhibiting: Natural rayon and acetate yarns in all put-ups; dyed nylon yarns; stretch nylon yarn; stretch Dacron yarns; metallic yarns for every trade in every put-up; thrown yarn of acetate, rayon, nylon, and Dacron in single or plied.
L. Malina
H. F. C. Wilcox — E. D. Kay
F. Diamond — J. J. Richrath
F. Malina — R. Westland
A. Malina — E. Tabor
T. L. Power — J. Gutcheon
R. Lyons — H. Calder
H. Greene — N. Vaiman
J. K. Malbin — B. Appelle
E. Kreuger — S. H. Eisenberg

JOSEPH BANCROFT & SONS CO. 564
Wilmington, Del.
Exhibiting: Men's and women's sweaters, T-shirts; men's briefs; men's hose; dresses.
L. W. Rainard, mgr., engr. sect.
R. Hutchinson, gr. leader, engr. sect.
L. Shattuck, gr. leader, engr. sect.

BEARING PRODUCTS CO. 156
Philadelphia, Pa.
Exhibiting: The Samplette three-bar tricot machine for tricot pattern design and experimentation; photographs of the Golaski full-fashioned sweater machine.
W. M. Golaski, pres.
H. E. Gosling, Jr., sales mgr.

BEEMER ENGINEERING CO. 210-A
Philadelphia, Pa.
Suppliers of: Self-lubricating oilless bearings; powder metal parts; oil, grease, and dust seals, etc.

BEMIS BROS. BAG CO. 80
St. Louis, Mo.
Suppliers of: Bag goods, osnaburgs, sheetings, sail and sewing twines.

BOGER & CRAWFORD 530
Philadelphia, Pa.
Exhibiting: Products made of mercerized and spun synthetic yarns.
F. Boger, pres.
E. T. Boger, vice-pres.
A. H. J. Boger, treas.
I. Wattis, sales
W. Carothers, sales
J. Carrasco, export dept.
R. Seeback, export dept.
M. R. Copeland, rep.
A. B. Rice, rep.
H. Segal, rep.

S. BOLDER & CO. 63
Philadelphia, Pa.
Exhibiting: Lewis blindstitch machines; Pfaff sewing machines.
S. Rotman, treas.

S. Bolder continued
A. Bolder, sec.

BRANT YARNS, INC. 146
New York, N. Y.
Suppliers of: Yarns.

ERINTON FABRICS MACHINE DIV. 231
New York, N. Y.
(See Scott & Williams, Inc.)

BURLINGTON ENGINEERING CO., INC. 17
Graham, N. C.
Suppliers of: Dyeing machines, including high pressure and temperature, package, piece goods, and reel types.

HERBERT BUSKIRK 140
Easton, Pa.
Exhibiting: Miniature display of trucking and rigging operation in handling full-fashioned knitting machines in one piece; also photos of various jobs done.
H. Buskirk, owner
W. F. Voight, Jr., off. mgr.

CANNON MILLS, INC. 505
New York, N. Y.
Exhibiting: Combed and carded knitting and weaving yarns, natural and dyed.
H. E. Aken, vice-pres. — F. A. Dusch
C. V. Albright — D. A. Long
J. C. Bartlett — J. J. Meyer
F. E. Byrne — R. C. Rapp
W. C. Cannon — J. F. Russell
H. Crumbliss — T. R. Smith
H. Curlee — J. W. Turner
W. F. Denning — J. C. Williams

CARBIDE & CARBON CHEMICALS CO. 435
New York, N. Y.
Exhibiting: Fur-like coatings knit from Dynel backing with all-Dynel pile and Dynel-Orlon pile; all-Dynel and Dynel blend sweaters; various knit Dynel-cotton underwear and sleepwear.
R. S. Brissette
R. K. Kennedy — A. L. Snyder
J. S. McGilly — C. A. Strodl

CARON SPINNING CO. 422
Rochelle, Ill.
Suppliers of: Worsted and synthetic yarns.

CARWILL PUBLISHING CORP. 53
New York, N. Y.

CELANESE CORP. OF AMERICA 395
New York, N. Y.
Suppliers of: Acetate filament and staple; viscose filament; Celaperm filament; Fortisan filament.

KNITTING SHOW
April 25-29
Atlantic City

THE CHAMPLAIN SPINNERS, INC. 499
Whitehall, N. Y.
Exhibiting: Spun Orlon, Acrilan, nylon, silk, and blended yarns; knitted garments made of these yarns; "Vigalon," a multi-colored spun yarn which gives an entirely new effect to knitted outerwear; tow-dyed high-bulk spun Orlon yarn.
L. C. Graff, vice-pres.
R. W. Parkin, vice-pres.
J. Smolin, vice-pres.
G. O. Belanger
M. B. Robbins

CHANDLER MACHINE CO. 542
Ayer, Mass.
Exhibiting: A new type high speed permanent pleating machine; swatch cutting-sample pinking machine; button sewing machines.
F. Rosenburg
D. Shields

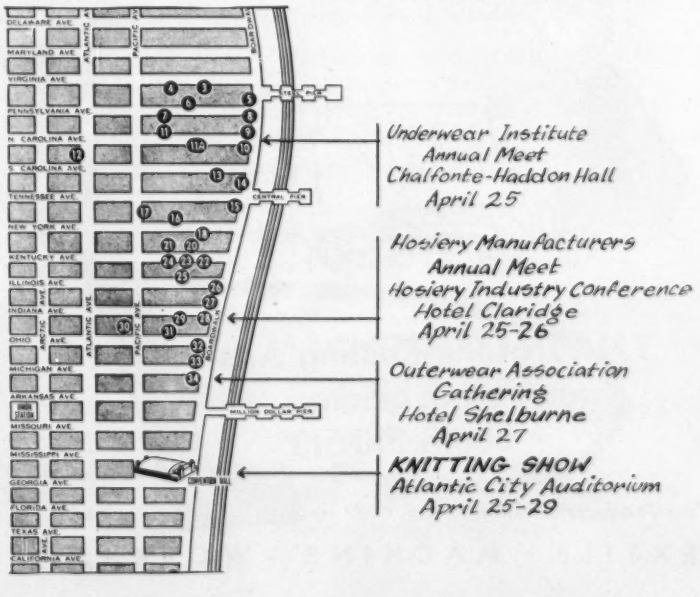
CHEMSPUN YARNS, LTD. 348
Brooklyn, N. Y.
Suppliers of: Yarns.

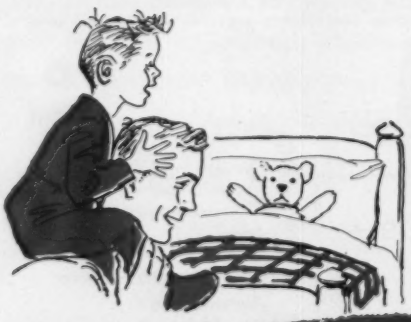
THE CHEMSTRAND CORP. 136
New York, N. Y.
Suppliers of: Acrilan staple and nylon yarn.

CLARK DOOR CO., INC. 49
Newark, N. J.
Exhibiting: Prest-O-Matic industrial door units; two full-sized operating units of Bifold and double horizontal sliding models.
H. B. Clark, pres.
H. B. Clark, Jr.
J. H. Harris, Jr.

CLOVERLEAF-FREELAND CORP. 37
Hazleton, Pa.
Exhibiting: Spools and bobbins, including the Hi-Temp (all-aluminum) Take-up shaft, the Top-Flight (hollow, all-aluminum) spinner, combination spinner/take-up, and tie-rod Bakelite spinner bobbin.
T. Coxe, sales mgr.
R. F. Makepeace, N.E. rep.
(*Continued on page* 169)

This map shows location of the Atlantic City Auditorium with respect to the hotels where the various association meetings are to be held.



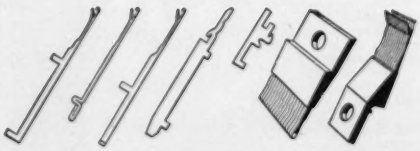


It's the little things that Count

A strong latch . . . freedom of latch movement . . . a smooth finish . . . these are some of the important "little things" that contribute to fine knitting. And these are some of the important "little things" you get when you specify Arrow Latch Needles — the product of Textile's quality control and Arrow's years of experience. Textile can equip any knitting machine. Deliveries from stocks in Reading, Penna., Asheboro, N. C. and Manchester, N. H.

Arrow
LATCH NEEDLES

. . . at the Knitting Arts Exhibition Booth 510-513



Wire Products Division

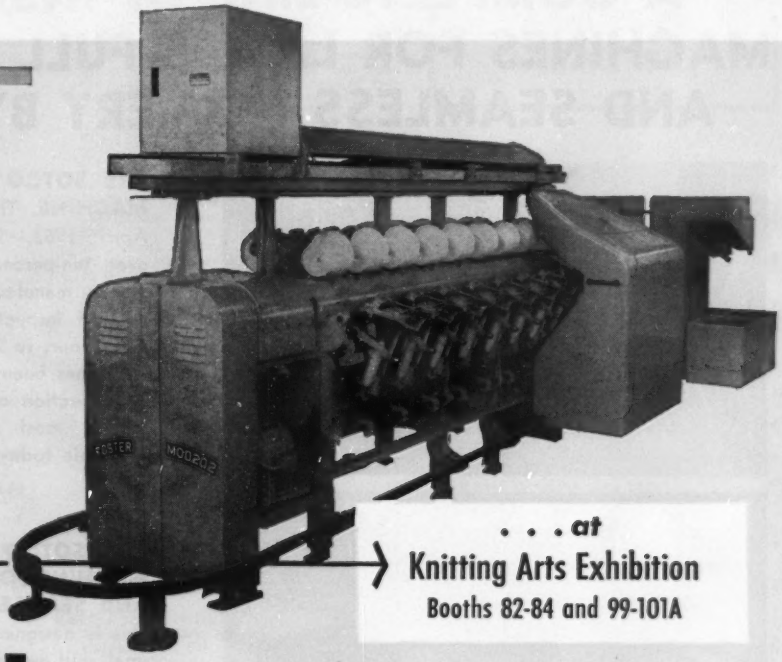
TEXTILE MACHINE WORKS, READING, PENNA.

FOSTER MODEL 202 AUTOMATIC CONE WINDER

The Only Automatic Machine Which Produces

CONES SUITABLE FOR KNITTING

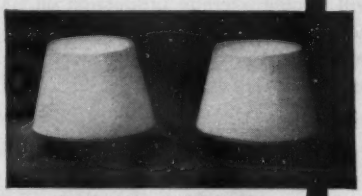
SEE IT IN OPERATION



. . . at

Knitting Arts Exhibition

Booths 82-84 and 99-101A



MODEL 102 and MODEL 202 CONES — IDENTICAL

FULL BOBBIN MOVING INTO SUPPLY POSITION—EMPTY BOBBIN BEING DOFFED

AUTOMATIC BOBBIN SORTER

The knitting cones (6″ traverse and 8½″ dia.) produced on this machine are identical in quality to those produced on the Foster Model 102, which has set the standard for the knitting industry for many years.

This machine increases production per hour per operator by 100% to 300% (depending on the kind and count of yarn), compared with modern, non-automatic machines.

It decreases operating costs proportionately, making it practical to replace non-automatic winders.

Only duties of operator are to drop full bobbin in a chute and catch the end in a clip in one single motion, don and doff cones and thread up. Everything else is automatic including tieing in of broken ends, doffing of bobbins and sorting of empty and partially filled bobbins.

If you can't see this machine at the Knitting Arts Exhibition, do the next best thing. Send for Bulletin A-100 which gives the complete story. No obligations.

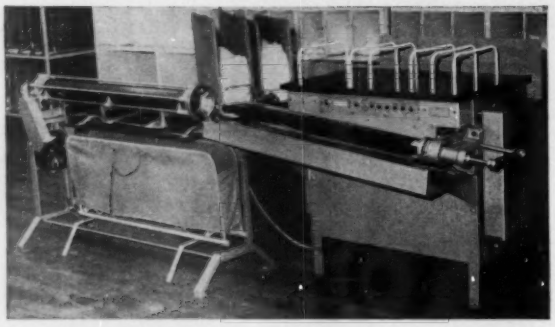
FOSTER MACHINE COMPANY

A Winder for Every Textile Purpose

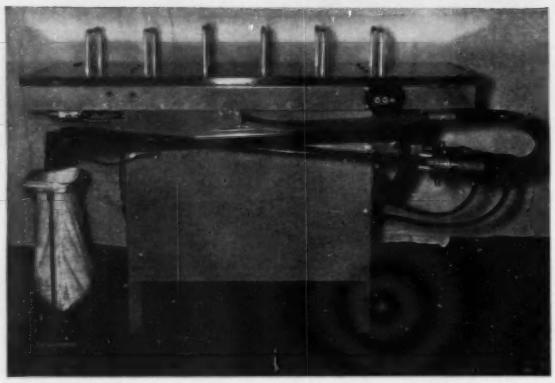
Westfield, Massachusetts, U.S.A.

Southern Office — Johnston Bldg., Charlotte, N. C. • Canadian Representative — Ross Whitehead & Company, Limited, 1475 Mountain St., Montreal, Que. and 35-37 King St., W., Toronto, Ont. • European Representative — Muschamp Textile Machinery, Limited, Keb. Lane, Bardsley, Oldham, England.

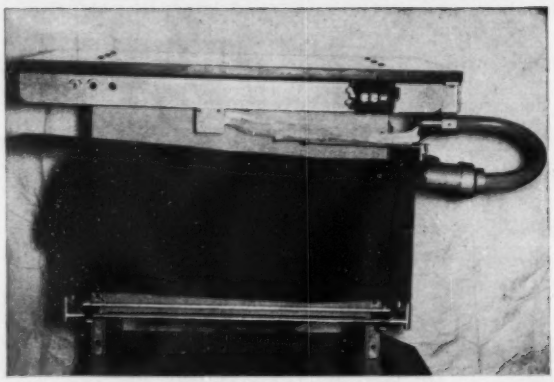
A COMPLETE LINE OF INSPECTING MACHINES FOR LADIES FULL FASHIONED AND SEAMLESS HOSIERY BY SOTCO!!



THE SOTCO AUTOMATIC INSPECTION MACHINE. This machine, on the market since April 1953, is presently used to inspect over ten-percent of all ladies full-fashioned hosiery manufactured in the U. S. A. It has increased inspection from 80 or 90 dozen per eight hours to 220 for the same length of time. There has been a 30% improvement in quality of inspection on this machine. It provides the fastest, most efficient means of inspection available today.



THE SOTCO PNEUMATIC INSPECTION MACHINE FOR LADIES FULL FASHIONED AND SEAMLESS HOSIERY, MODEL 6000. This is designed to fit the pocketbook of the small mill owner who cannot afford the more expensive and productive machine above. Production will double average production on flat forms. The form expands and collapses by air pressure and a stacking attachment stacks stockings in a container or bag.



THE SOTCO PNEUMATIC INSPECTION MACHINE FOR LADIES SEAMLESS HOSIERY, MODEL 5000. A small machine designed primarily for ladies seamless hosiery, its form does not expand or contract. The stocking is pulled on the form, trimmed and inspected, and pulled through the center of the form by vacuum pump. Stocking is stacked in container or bag. Production is increased approximately one-third over conventional hand methods.

THE SOUTHERN TEXTILE MACHINERY CO., INC., proudly announces their complete line of inspection machines for ladies seamless and full-fashioned hosiery shown above. All three machines will be sold exclusively by SOUTHERN TEXTILE MACHINERY CO. of Paducah, Ky. in the U. S. A.; sales in Canada will be handled by W. J. WESTAWAY CO. of Hamilton, Ontario, Canada; sales in England and Continental Europe will be handled by G. STIBBE & Co., Great Central Street, Leicester, England. Prices and details are available on request.

SOUTHERN TEXTILE MACHINERY CO.

INCORPORATED

PADUCAH **KENTUCKY**

Cloverleaf-Freeland continued

W. H. Miller, vice-pres. & prod. mgr.

COCKER MACHINE & FOUNDRY Co. 88
Gastonia, N. C.
Exhibiting: Type 54 tricot warper; latest model tensions and cone holders and stop motion.
J. Cocker, III, pres.
J. C. Bodansky, vice-pres.
H. W. Groce, sales dept.
F. H. Cunningham, Jr., sales dept.
P. E. Sherrill, engr.

COMER-AVONDALE MILLS, INC. 375
New York, N. Y.
Exhibiting: Cotton yarns of Avondale and Cowikee Mills and products produced from these; brushed cotton sweaters; yarns of various synthetic fibers.
I. C. Schumacher, vice-pres.
L. B. Allen
G. W. Bailey
J. Ballow
P. R. Branton, vice-pres.
J. E. Bush
G. Clark
C. Crowther
R. O. Elliott, vice-pres.
R. E. Fulton
S. E. Fulton, vice-pres.
W. Hardegree
J. F. Sharp
B. C. Weber, vice-pres.
W. R. Austin, vice-pres., Avondale Mills

COTTON YARNS, INC. 141
New York, N. Y.
Exhibiting: Combed, carded, mercerized, dyed, and bleached yarns for knitting and weaving; sewing thread yarns and finished units; blend yarns, including cotton/Orlon, cotton/nylon, cotton/acetate, and cotton/Acrilan.
C. A. Ross
R. J. Gurney — A. Kushner
H. A. James — M. Reibel
E. L. Strauss — N. Langer

H. E. CRAWFORD CO., INC. 85
Kernersville, N. C.
Exhibiting: An 84-needle, 18 gauge, 4" AA 3 argyle knitting machine; a 16-needle, 36 gauge, 3¾" AA 2 argyle machine; a 60-needle, 10 gauge, 5¼" SS-M-2 Morphul machine; a 176-needle, 36 gauge, 3½" 25 step, spiral HH machine fitted with AA 2 attachment.
Herman Crawford, Sr., pres.
H. E. Crawford, Jr., vice-pres.
Willis Stinnette
A. K. Woods, Sr., foreman
Milford Smith, sales
Cecil Crawford, pres. Morphul Inc.

THE CRAWFORD MFG. CO., INC. 389
New Brunswick, N. J.
Exhibiting: Complete electric stop motions for all makes of circular and flat knitting machines; various types of control boxes; needle protectors; hole detectors; tensions; guides.
A. Crawford, pres.
G. Onderdonk, sales mgr.
F. Doerr, shop supt.
M. Antonevick, dev.

CROSS COTTON MILLS CO. 543
Marion, N. C.
Exhibiting: Space for visitors.
E. Cross, Jr., pres.
O. R. Cross, treas.

CUMMINGS-LANDAU LAUNDRY MACHINERY CO., INC. 203
Brooklyn, N. Y.
Exhibiting: A complete washing plant for knit goods, including a stainless steel washing machine, stainless steel extractor, a steam-heated drying tumbler, and a small stainless steel combination washer-extractor.
E. Cummings
D. Green

CUTTING ROOM APPLIANCES CORP. 275
New York, N. Y.
Suppliers of: Cloth laying machines, measuring and inspecting machines, and sectional metal cutting machines.

DAILY NEWS RECORD (publication) 139
New York, N. Y.

DAVISON PUBLISHING CO. 61
Ridgewood, N. J.
Suppliers of: Textile directories.

DEERING MILLIKEN RESEARCH TRUST 81
Pendleton, S. C.
Exhibiting: "Agilon" stretch yarns, including elasticized filament nylon stretch yarns in a variety of deniers for use in women's hosiery, men's hose, woven and tricot fabrics, body-knit fabrics, etc., and combination stretch yarns of elasticized nylon plied with cotton, wool, and spun synthetic yarns; woven and knitted fabrics and articles produced from "Agilon" stretch yarns.
R. B. Newton, pres.
N. C. Armitage, vice-pres.
E. D. Bolinger — H. Repokis
E. H. Pittman — J. W. Whitworth

DIXIE MERCERIZING CO. 527
Chattanooga, Tenn.
Exhibiting: Garments knitted and woven of Durene cotton yarns and synthetic yarns of all descriptions and blends.
J. B. Frierson, pres.
C. R. Ewing, vice-pres.
A. K. Johnson, vice-pres.
P. D. Morrow, rep.
D. O. Blevins, rep.
E. R. Kimball, rep.
W. D. Evans, rep.
W. C. Henderson, rep.
J. B. Cameron, rep.
A. Cameron, III, rep.
W. A. Eipper, Jr., rep.
F. W. Frank, rep.
G. W. Veness, rep.
G. M. Porges, rep.
W. W. Logan, rep.
M. H. Horchler, rep.
P. H. Dalglish, rep.
T. J. Tighe, rep.

THE DOBECKMUN CO. 168
Long Island City, N. Y.
Suppliers of: Lurex non-tarnishing metallic yarn.

DUBIED MACHINERY CO. 272
Long Island City, N. Y.
Exhibiting: Circular knitting machine Type "Wevenit" A24 equipped with "Multivar" for manufacture of sweaters and cardigans for children, men, and women; full-automatic double-lock power flat-knitting machine Type DRL with independent selection of the high or low butt needles and stitch transfer.
John G. Sandri, vice-pres.
Rudolf Singer, sec. & treas.
Ernest Hafner, textile expert
Jacques Gutknecht, textile expert

THE DUFFY SILK CO. 441
Buffalo, N. Y.
Exhibiting: Samples of yarn and merchandise, particularly featuring stretch yarns such as "Helanca" and others.
C. G. Duffy, Jr., pres.
P. Hemmerich, ex. vice-pres.
P. H. Hemmerich
C. W. Seidel
C. A. Lorenz, Jr.
H. Gordon Kenna, Jr.

THE DUPLAN CORP. 336
New York, N. Y.
Suppliers of: Yarn processors.

E. I. DU PONT DE NEMOURS & CO., INC. 109
Wilmington, Del.
Exhibiting: Fibers, yarns, fabrics, and garments made of Du Pont textile fibers.

EASTERN YARN MILLS, INC. 348
Brooklyn, N. Y.
Suppliers of: Novelty yarns.

EASTHAMPTON RUBBER THREAD CO. 102
Easthampton, Mass.
Suppliers of: Covered rubber thread.

EASTMAN CHEMICAL PRODUCTS, INC. 303
Kingsport, Tenn.
Exhibiting: Chromspun filament and staple yarn; Estron filament and staple yarn; crystal filament yarn; knitted fabrics made from these yarns.
F. J. Ruddock, sales rep. N. Y.
W. T. Cummins, sales rep. N. Y
P. Coan, sales rep. N. Y.
J. Carvin, sales rep. N. Y.
R. W. Greene, dist. sales mgr., N. E.
R. Cook, sales rep. N. E.
R. W. Leswing, sales rep., Pa.
H. Waters, dist. sales mgr., N. C.
J. Heape, sales service mgr.
J. R. Sherril, asst. sales mgr.
C. P. Bertland, sales mgr.

KNITTING SHOW
April 25-29
Atlantic City

JOHN A. EBERLY, INC. 538
Reading, Pa.
Suppliers of: Knitting mill specialties, including needles, sinkers, points, and thread guides.

EDLEY MACHINE CO. 434
High Point, N. C.

EMERSON APPARATUS CO. 297
Melrose, Mass.
Suppliers of: Tension testing equipment.

EMSIG MFG. CO. 120
New York, N. Y.
Suppliers of: Buttons.

ENGINEERED PLASTICS INC. 44
Gibsonville, N. C.
Exhibiting: Bobbins; tubes; caps; specialties of plastic materials.
D. M. Davidson, Jr., pres.
C. H. Phillips, sales engr.
J. H. Sindle, Jr., N. E. sales rep.

ERRICH INTERNATIONAL CORP. 54
New York, N. Y.

EWING-THOMAS CORP. 114
Chester, Pa.
Suppliers of: Yarn dyers.

W. F. FANCOURT CO. 515
Philadelphia, Pa.
Exhibiting: One bath scouring and dyeing with Fanco Scourlon and Fanco Pentalon; Vibralon hosiery finishes for dulling, weight, and body; Lanaseal which contains lanolin and Nyaseal for beauty and comfort.
W. F. Fancourt — T. Lindley
J. L. Fancourt — R. P. Rhodes
C. G. Wolff — J. W. Young

ERNEST A. FEUSTEL, INC. 145
Lodi, N. J.
Suppliers of: Yarn carriers and tubes for full-fashioned hosiery knitting machines.

FIDELITY MACHINE CO., INC. 243
Philadelphia, Pa.
Exhibiting: The Fidelity "400" needle electronically-controlled ladies seamfree hosiery machine; Fidelity automatic ribber—the latest innovation in automatic half-hosiery machinery completely equipped with new Fidelity 10-end yarn selector and knot tyer unit; Fidelity ribber Serial No. 1 which was originally shipped from the factory Aug. 19, 1920, and has been in constant use at plant of Lawler Hosiery Mills at Carrollton, Ga.
L. Katz, pres.
R. D. Faigenbaum, vice-pres., sales
G. Petrie, dems.
P. Mahler, dems.
P. Haas, dems.

FIRESTONE INDUSTRIAL PRODUCTS CO. 277
Akron, Ohio
(See Percy A. Legge)

J. A. FIRSCHING & SON, INC. 282
Utica, N. Y.
Exhibiting: New special Wonder Bias collarette and strip cutting machine; fully automatic laying-up machine; lightweight hand laying-up machine; combination

SHOW HOURS

Mon. April 25—Noon to 6 P.M.
Tues. April 26—Noon to 10 P.M.
Wed. April 27—10 A.M. to 6 P.M.
Thurs. April 28—10 A.M. to 6 P.M.
Fri. April 29—10 A.M. to 1 P.M.

ANNOUNCING!

...A TOTALLY NEW NEEDLE LUBRICANT for fine-gauge full-fashioned and seamless knitting machines

SHELL VEXILLA OIL 117

1. **12 TIMES GREATER RUST PROTECTION** than the best current oils . . . during both operating and shutdown periods.

2. **Eliminates green soap formation,** and minimizes machine oxidation.

3. **Controls nylon size deposits,** and permits easy cleaning during shutdown periods.

4. **Very low surface tension,** resulting in increased wetting and lubrication.

5. **No gummy deposits . . .** contains no fatty acids.

Shell VEXILLA OIL 117 establishes a new set of standards in knitting machine lubrication. Test it in comparison with the oil you are using. Write for further information.

SHELL OIL COMPANY
50 West 50th Street • New York 20, New York

SHELL

strip cutting and rolling machine No. 4X-12-45.
B. Firsching, pres.
A. Kern

FLETCHER WORKS, INC. 287
Philadelphia, Pa.
Exhibiting: Fletcher "Speedex" winder; Fletcher 30" Junior extractor.
C. W. Moore, vice-pres.
T. B. Baldridge, Jr., sales dept.
J. D. Harrison, sales dept.

FOSTER MACHINE CO. 82
Westfield, Mass.
Exhibiting: Model 202 automatic cone winder; Model 102 cone and tube winder; Model 75 precise wind cone winder; Model 76 nylon sizing machine; Model 77 8" traverse precise winder; Model 78 10" traverse precise winder.
W. C. Chisholm, pres. & treas.
E. C. Connor, vice-pres.
H. W. Ball, ch. engr.
C. B. Terry, sales dept.
H. E. Swift, sales dept.
J. B. Davenport, sales dept.
E. P. Dodge, sales dept.
G. W. Mallory, sales dept.
H. A. Cadle, sales dept.
F. F. Stange, engr. dept.
C. P. Bullard, engr. dept.
E. R. Davis, engr. dept.
R. B. Kendall, engr. dept.

FRANKLIN PROCESS CO. 444
Philadelphia, Pa.
Suppliers of: Package dyed yarns.

GARMENT FINISHING EQUIP. CORP. 502
Cambridge, Mass.
Exhibiting: The Bates portable rotary pressing machine.
Felix Renick, pres.
R. S. Dickie, Jr., vice-pres.

GASTONIA COMBED YARN CORP. 141
Gastonia, N. C.
Suppliers of: Yarns.

GENERAL ELECTRIC CO. 462
Schenectady, N. Y.
Suppliers of: Electric motors, motor-generator sets, switches, etc.

GINSBERG MACHINE CO., INC. 266
New York, N. Y.
Exhibiting: Knit goods and special hosiery Trim-Master machines; rotary argyle trimmer; Electro-Sealer for labels; ladies horizontal seamless trimmer, etc.
W. R. Lieberman, sales mgr.
S. Margolis, export mgr.
H. Stout, factory agt.
Mrs. Schorpp, Trim-Master trainer
C. Jordan, Electro-Seal mgr.

GLOBE DYE WORKS CO. 377
Philadelphia, Pa.
Suppliers of: Dyers of cotton, rayon, worsted, nylon, Orlon, Dacron, Acrilan, blended, and novelty yarns.
H. T. Greenwood, pres.
T. S. Greenwood — W. A. Hilbert
W. Greenwood — W. B. Taylor
W. Goodis — F. V. Traut

GROVE NYLON CO. 331
Scranton, Pa.
Exhibiting: Stretch type yarns for hosiery; chairs for visitors.
W. L. Schautz, rep.
A. G. Schautz, rep.
W. T. Cheatham, sales rep.
H. C. James, sales rep.
W. C. Napier, Jr., sales rep.
D. M. Harshman, sales rep.
R. F. Yeabsley, sales rep.
R. W. Yeabsley, sales rep.
Dr. R. F. Stuewer, chem.
J. Kalinowski, tech.

H. C. HARDING, INC. 57
Philadelphia, Pa.
Exhibiting: Staycoat stainless needle oil (made for al gauges); Humdinger needle preserver and polisher; Check No. 9 solvent and penetrant; 15 denier nylon lubricant for filament and monofilament yarns; Quick sinker, divider, and needle cleaner and polisher; Stayslick lubricant (rust inhibitors added); Marvel grease for sinker pots and ball bearings; Triune and Kem Lub trough solutions; XL metal form cleaner for hot or cold forms; Sheer-Joy hand cream; Metallic Cleaner No. 2 for cleaning all metal parts.
G. J. Reihl, sales mgr. & pres.
M. M. Wolf, sales rep.

HARRIET-HENDERSON COTTON MILLS 117
Henderson, N. C.
Suppliers of: Fine knitting yarns.
M. Y. Cooper, treas.
J. L. McInnis, sec.
T. H. Crudup, Jr., asst. sec.
A. G. Sewell, sales rep.
D. F. Swain, sales rep.
D. O. Blevins, sales rep.
W. Brown, sales rep.
P. H. Dalglish, sales rep.

HAYSSEN MFG. CO. 555
Sheboygan, Wis.
Exhibiting: A new wrapping machine especially designed for products such as men's briefs, underwear, hosiery, etc.
J. O. Willis, div. sales mgr.
F. Koehn, div. sales mgr.
H. White, agt.
J. C. Johnston, gen. mgr.
W. A. Hayssen, pres.

HEANY INDUSTRIAL CERAMIC CORP. 19
New Haven, Conn.
Exhibiting: Textile guides having a hardness of 9 plus on the Moh's scale; Heanium tension fingers for spoolers; Heanium pigtails—pigtails made of all Heanium and metal pigtails with Heanium inserts.
A. O. Pieper, pres.
H. Boveri, prod. mgr.
R. Carroll, rep. engr.

New Equipment

for the knitting industry, much of which will be on display for the first time at the Knitting Show, is described on pages 217 through 223 of this issue. You will want to read about it before going to Atlantic City.

OSCAR HEINEMAN CORP. 499
Chicago, Ill.
Suppliers of: Yarn processors.

THE HEMINWAY & BARTLETT MFG. CO. 155
New York, N. Y.
Exhibiting: Nylon threads for sewing of knitted outerwear and underwear—"Nylbond" and "Nylsew"; "Filaspun" thread for the sweater industry—available in nylon, Orlon, and Dacron; a special no-core, no shell bobbin called "Hembobs" manufactured in nylon, Orlon, Dacron, and rayon; for the sweater industry, a nylon separating thread.
E. Vogel, sales dept.
H. T. Spray, appl. engr.

HEMPHILL CO. 163
Pawtucket, R. I.
Exhibiting: For the first time the "Hemplon," a 75-80 gauge circular machine for production of ladies' seamless and streakless hosiery — incorporates Hemphill's patented "New System of Knitting;" also in operation will be other recently developed circular-knit hosiery machines for production of hose for men, boys, girls, and infants.
J. D. Hobson, treas. & gen. mgr.
B. R. Ebersman, vice-pres. & sales mgr.
J. McDowell, vice-pres. so. sales
R. M. Sachar, vice-pres., N. Y. sales
E. St. Pierre, vice-pres. exp. research
Miss E. M. Brown, sales rep.
T. T. Toole, sales rep.
R. Lamontagne, sales & service rep.
P. Howard, sales & service rep.
R. Greene, sales & service rep.
A. Alred, sales & service rep.
J. P. Canavan, supt. of fabric research
W. Ehlert, fabric research dept.
M. Ward, supt. of bldg. & test.
I. Green, exp. dept.
P. L. St. Pierre, exp. dept.
C. Brown, exp. dept.
A. Bouthillette, exp. dept.
N. D. Langlois, pub. rel. dir.

KNITTING SHOW
April 25-29
Atlantic City

HENRICI LAUNDRY MACH. CO. 41
Mattapan, Mass.

HERR MFG. CO., INC. 38
Buffalo, N. Y.
Exhibiting: A complete line of light weight flyers, specially designed to produce Helanca and all types of stretch nylon yarns; all sizes of the special Herr conical ring that permits higher spindle speed with controlled lubrication.
H. B. Atwood, pres.
W. W. Woodward, tech. engr.
R. M. Leach, tech. engr.
E. B. Ahlers, vice-pres.
J. McLean, engr.

HESS, GOLDSMITH & CO., INC. 75
Atwater Division
Plymouth, Pa.
Exhibiting: Fabrics and garments and yarn samples of "Taslan" textured yarn; "Ban-Lon" bulked, stretch yarn; "Hytor" special twist yarn; ladies' sheer stretch hosiery made from special thrown yarns; various other thrown yarn developments.
E. J. Schellenberg, gen. mgr.
E. J. Schellenberg, Jr., asst. gen. mgr.
R. P. Schellenberg, sales mgr.

HOFFNER RAYON CO. 456
Philadelphia, Pa.
Exhibiting: Dyed and thrown rayon, nylon, and Dacron yarns, and featuring "Imulon" immunized colored nylon yarns and Helanca dyed yarns.
J. C. Hoffner, pres.
J. G. Hoffner, vice-pres.
J. M. Hoffner, sec.
C. P. Hoffner, treas.
J. C. English, sales mgr.

ALFRED HOFMANN & CO. 362
West New York, N. J.
Exhibiting: 2-bar Mayer "Ultraspeed" tricot machine; 4-bar Mayer rubber Raschel machine; Oerlikon needle pliering projector, NAP 3.
C. A. Hepp, pres.
P. Schoenster, sec. & gen. mgr.
K. Mayer
A. A. Brenner, sales
M. Ebert, engr.
F. Hanna, tech.
H. Nittmann, tech.

ALFRED HOFMANN NEEDLE WORKS, INC. 358
Union City, N. J.
Exhibiting: A Mayer interlock type "Internit" machine for run-resistant circular knit fabrics; a Mayer circular knit machine type "Overnit" Jacquard for outerwear fabrics, 29" diameter 18 feeds; latch and spring beard needles made by Groz-Beckert K. G., Ebinger, West Germany.
C. A. Hepp, pres.
R. Eppler, treas.
H. L. Wirth, sales mgr.
A. Bachman, sales rep.
G. Graves, sales rep.
E. Mayer, pres., Mayer & Cie.
C. Foehl, gen. mgr., Groz-Beckert
W. Sorhagen, sales mgr., Groz-Beckert

HOHENBERG CO., INC. 157
New York, N. Y.

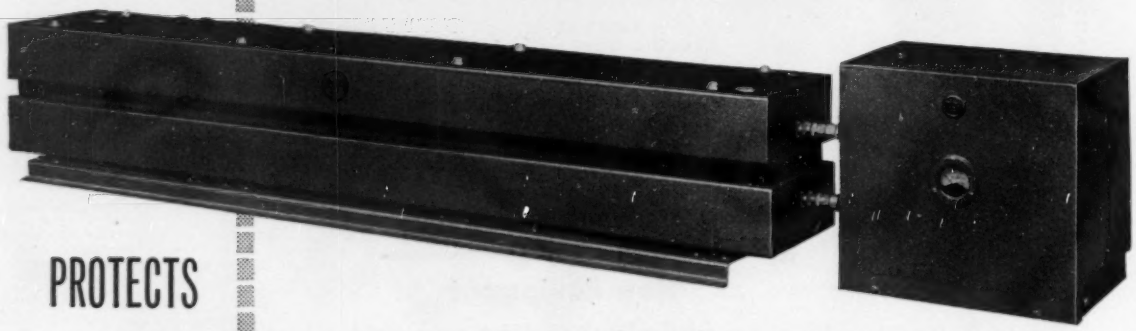
HOSIERY INDUSTRY WEEKLY (publication) 213
New York, N. Y.

HOSIERY AND UNDERWEAR REVIEW (publication) 51
New York, N. Y.

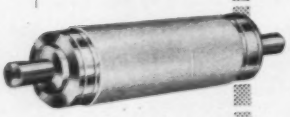
INDIAN ORCHARD FINISHING CO. 116
Indian Orchard, Mass.
Suppliers of: Dyers and finishers of knitted fabrics.

New RCA Metal Detector

Designed Especially for the Textile Field



PROTECTS



costly calender rolls, cutting knives, dies.

REDUCES

loss from damaged products and downtime.

Now . . . for the first time . . . an RCA Electronic Metal Detector to solve the special tramp metal problems of the textile industry! It automatically spots metal particles of all types—both magnetic and non-magnetic—even though they may be woven into the fabric.

FOR HIGH SPEED OPERATIONS—The RCA Metal Detector may be employed with strip material traveling at speeds from 10 to 1000 feet per minute, with full inspection sensitivity (will detect a steel sphere 0.039 in.—1 mm.—dia.). Finding particles the eye could never see, the detector can be arranged to sound an alarm, stop the traveling material, or cause dye or chalk to mark the spot.

ANYONE CAN OPERATE—Your regular plant personnel can operate the equipment with ease and safety because of simple Control Unit design, and complete absence of moving parts or exposed electrical connections.

PAYS FOR ITSELF! In many varied operations, RCA Metal Detectors have paid for themselves—two or three times in a year—in longer life of calenders and other key machinery, decreased downtime and savings on product losses. The Detector can be put to work quickly in your plant by maintenance personnel under the supervision of an RCA Service Company specialist. Their nationwide facilities keep maintenance at a minimum.

Visit our exhibit at the Knitting Arts Exhibition—Booth 379

RCA . . . the World's Best Name for QUALITY.

RADIO CORPORATION of AMERICA

CAMDEN, N. J.

In Canada: RCA VICTOR Company Limited, Montreal

Why not send for more particulars today? Use Coupon.

Radio Corporation of America
Dept. P-271, Building 15-1, Camden, N. J.

Please send me information on the RCA Electronic Metal Detector for textile applications.

Name_____ Title_____

Company_____

Address_____

City_____ Zone_____ State_____

THE INDUSTRIAL DRYER CORP. 151
Stamford, Conn.
Exhibiting: Latest and most flexible model of the "H-W" Conditioner.
J. R. Tutt, N. E. rep.
P. H. Friend, So. rep.
R. G. Leininger, Pa. rep.
F. W. Caesar, vice-pres.

INTERSTATE YARN MILLS, INC.
No. Bergen, N. J.
Suppliers of: Convert rayon and novelty yarns; dye, bleach, and finish.

LOYAL T. IVES CO., INC. 344
New Brunswick, N. J.
Exhibiting: Spring beard knitting machine needles, sinkers, jacks, sliders, points, and other sheet metal knitting machine parts.
T. Whitlock, Sr., pres.
T. Whitlock, Jr., sec.
C. S. Lydecker, sales mgr.
R. Bergen, sheet metal supv.

JACQUARD KNITTING MACHINERY CO., INC. 341
Philadelphia, Pa.
Exhibiting: Circular Jacquard knitting machine, Model TA1; fine cut interlock knitting machine with motor drive, lubrication system, and many other fully automatic features.
C. Miller, vice-pres.
R. Dott, sales mgr.
J. Tittl, service mgr.
F. Beeton, service dept.

JOHNSTON MILLS CO. 540
Charlotte, N. C.
Exhibiting: Space for visitors.
D. R. Johnston, pres.
D. R. Jonas, vice-pres.
R. M. Bechtel, sales rep.
R. N. Belk, sales rep.
W. J. Crummer, sales rep.
J. W. Ferguson, sales rep.
E. E. Jones, Jr., sales rep.
W. B. Phelps, Jr., sales rep.
W. J. Yates, sales rep.

JORDAN MILLS, INC. 509
Columbus, Ga.
Suppliers of: 2s to 20s natural and colored knitting and weaving yarns.

KAHN & FELDMAN, INC. 419
New York, N. Y.
Exhibiting: Space for visitors.
G. N. Frank — H. Kurtz
A. Cameron — C. R. Ibach, Jr.
J. B. Cameron — D. F. Swain
W. A. Eipper, Jr. — P. Wilson
P. H. Dalglish — D. O. Blevins

SAMUEL KASSOW CO. 431
Philadelphia, Pa.
Suppliers of: Yarn processors.

KAUMAGRAPH CO. 549
Wilmington, Del.
Exhibiting: A full line of color packaging; Kaumagraph dry transfers for product decoration and identification; Prestomark thermo-adhesive labels for automatic labeling; Prestomark appliques for decorative purposes; printed tissues and cellophane wraps; lithographed box wraps; lithographed box wrappers, bands, and rider tickets; and showing for the first time the new Prestomark automatic label applying machine, a low-cost and highly efficient machine for putting thermo-adhesive cloth labels on knitted outerwear and underwear.
F. T. Marston, pres.
B. P. Lindley, vice-pres.
J. L. Reeves, rep. N. E.
A. J. Geiringer, N. Y. rep.
D. V. Woods, N. Y. rep.
W. C. Marden, Pa. rep.
V. G. Stanton, Ill. rep.
W. P. Raiford, N. C. rep.

KEARNY MANUFACTURING CO., INC. 370
Kearny, N. J.
Exhibiting: Conventional winders equipped with the newest device for treating yarns during the winding process for the purpose of setting twist, waxing, tinting, etc.; psychrometer for instant determination of moisture in yarns and fabrics.
C. F. Dulken, Sr., pres.
E. W. Ercklentz, vice-pres.
J. P. Sturzenegger, ch. chem.
S. H. Johnson, sales mgr.
T. Huston, rep. Pa. & N. J.

KENNETT EQUIPMENT & MACHINERY 138
Kennett Square, Pa.
Exhibiting: Stainless steel hosiery and knit goods dyehouse trucks; stainless steel hosiery inspection boxes; aluminum cans and pin trucks.
R. Woods, pres.
C. H. McKaig, vice-pres.
M. C. Seldomridge, supt.
J. A. Adams, sales rep.

KEYSTONE DYEING CO., INC. 263
Philadelphia, Pa.
Suppliers of: Dye and finish hosiery; dye synthetic piece goods and sweaters.

KIDDE MANUFACTURING CO., INC. 489
Bloomfield, N. J.
Exhibiting: Warp knitting machinery; sectional warper; creels; yarn tensioners.
W. J. Behr, Jr., vice-pres.
H. J. Ruddick, vice-pres.
H. J. Noe, engr. — W. Melford
J. H. Fleming, sales — R. Peel
R. Giordano, sales
K. Kaak, tech.
C. E. Glover, tech.

A. KIMBALL CO. 399
New York, N. Y.
Exhibiting: Motor midget, Kimflex Kimco, labeling machine for ML93-G, KK-92, KK-93 for cone labeling; Roto Kimco system.
H. T. Odom, rep., Winston-Salem
D. Ferber, N. J. rep.
J. Kremer, N. Y. rep.
F. Brady, Philadelphia rep.
J. P. McGuire, asst. to pres., sales

KLAUDER-WELDON-GILES MACHINE CO. 50
Philadelphia, Pa.
Suppliers of: Wet processing equipment.

JOSEPH KLUMPP CO. 503
Philadelphia, Pa.
Exhibiting: Cotton yarns, including carded, combed, Durene, combination, and specialty.
J. J. Klumpp — R. D. Miller
G. L. Vonder Lindt — R. S. Hayes
W. Gill, Jr. — W. J. Kane
H. W. Steele — J. M. McGinnes
C. H. W. Mandeville, Jr.

THE KNITTER (publication) 514
Charlotte, N. C.

LACONIA COOPER CO., INC. 455
Laconia, N. H.
Exhibiting: Latch and spring beard needles.
G. A. Parsons — B. Lauderbach
C. E. Gamper — G. L. Dawson
C. O. Hodges — K. R. Lingley

LASSITER CORP. 421
New York, N. Y.
Exhibiting: Packaging, including hosiery box wraps, tissues, inserts, and folders; printed cellophane, polyethylene, and other flexible films.
J. H. Lassiter, pres.
L. W. Weller, ex. vice-pres.
J. V. Shea, vice-pres.
H. C. Wall, treas.
W. B. Wine, vice-pres.
R. W. Plover
J. C. Tiddy
M. R. Smilow

LATTA, CURRIER CO., INC. 74
New York, N. Y.
Exhibiting: Combed and carded cotton yarns; fine Sak yarns for the warp knit trade in a range from 70s to 120s; Ban-Lon and Fluff-Lon yarns and fabrics and garments made from them.
A. W. Latta, Jr., pres.
A. M. Currier, vice-pres.
W. L. Huggins, III
W. F. Durkin
L. E. Rudisill, Nuway Spinning Co.
D. S. La Far, Bowling Green Spinning Co.
J. C. Moore, Sterling Cotton Mills

LAUREL SOAP MFG. CO., INC. 547
Philadelphia, Pa.
Exhibiting: Conditioning emulsions; winder trough solutions for cotton, spun rayon, wool, nylon, Orlon and blends; coning oils for treating Orlon, nylon, Dacron, Acrilan, and acetate; sizes for hosiery yarns; hosiery boil-off compounds; hosiery finishes for all fibers; complete line of package dyeing assistants and finishes.
C. E. Bertolet, pres.
W. H. Bertolet, Jr., treas.
A. H. Gaede — T. C. Holst
F. Jackson — B. N. Peterson
W. H. Bertolet, III — J. P. McGinty

LEATEX CHEMICAL CO. 3
Philadelphia, Pa.
Suppliers of: Chemical specialties.

PERCY A. LEGGE 277
Philadelphia, Pa.
Exhibiting: Yarns of all types, including natural fibers, luxury fibers, synthetic fibers, bare and covered rubber thread.
O. H. Vanderbeck — O. L. McCurdy
H. C. Legge — W. Smith
C. W. Neeld — R. C. C. Condon
A. E. Snyder — R. S. Rosenfeld
A. R. James — G. L. Wagoner
T. W. Adams

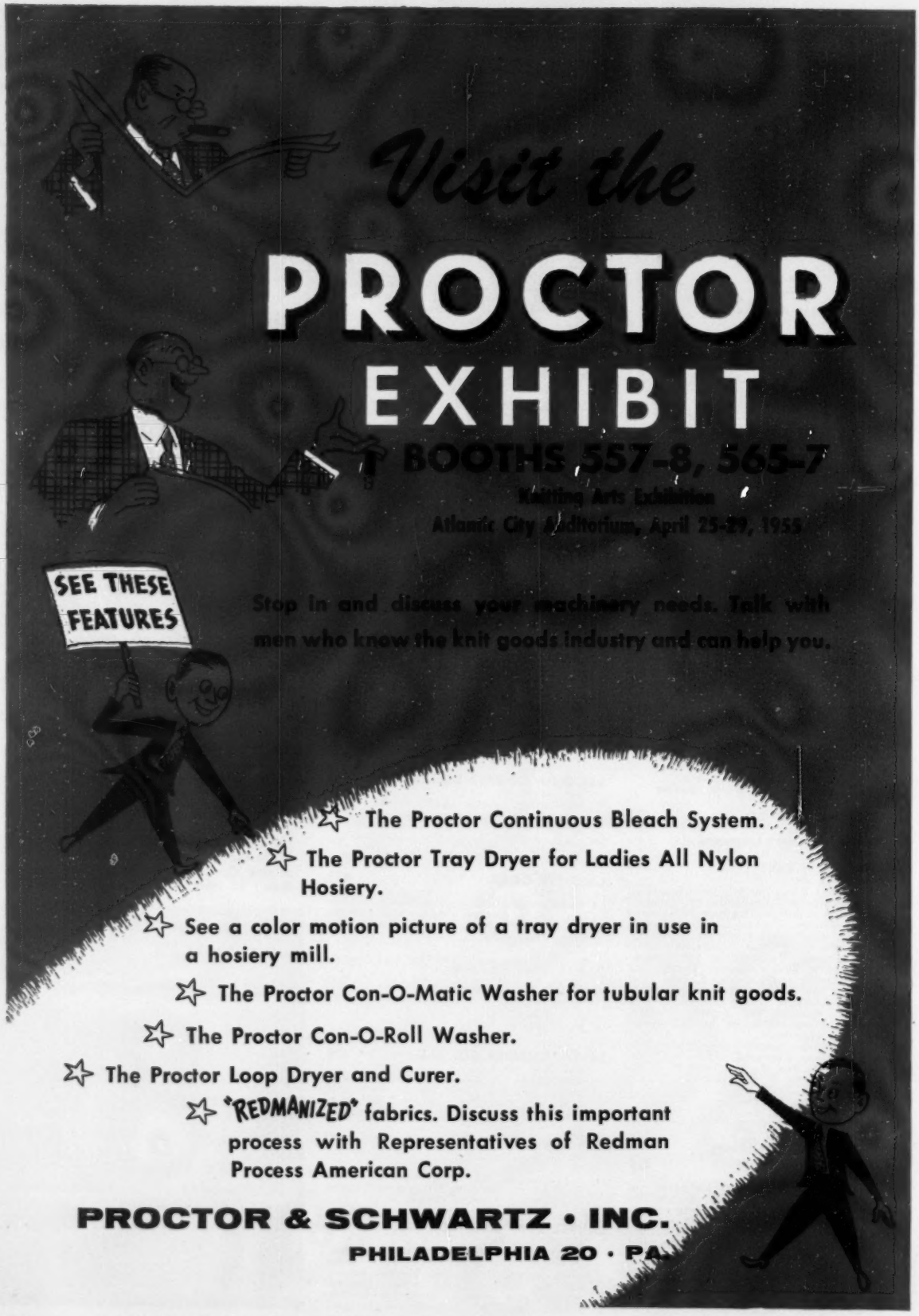
LEON-FERENBACH INC. 380
New York, N. Y.
Exhibiting: Samples of yarns and products made from them, including men's, women's, and children's hosiery, lace, tricot, and Raschel.
C. Ferenbach, pres.
T. B. Craver, controller
A. N. Tingley, dir. qual. control
W. W. Patten — R. W. Boyd
C. W. Wolcott — R. S. Ferenbach

LIBERTY THROWING CO., INC. 501
Kingston, Pa.
Suppliers of: Throwsters.

KARL LIEBERKNECHT, INC. 391
Reading, Pa.
Exhibiting: Space for visitors; will arrange to have interested parties taken to see Lieberknecht full-fashioned hosiery machines, full-fashioned sweater machines, warp knitting machines, and

KNITTING SHOW
April 25-29
Atlantic City

Hotel Claridge, Atlantic City, N. J., where the annual meeting of the National Association of Hosiery Manufacturers and the Hosiery Industry Conference will be held on April 25 and 26. See map, p. 165.


Visit the
PROCTOR
EXHIBIT
BOOTHS 557-8, 565-7
Knitting Arts Exhibition
Atlantic City Auditorium, April 25-29, 1955
SEE THESE FEATURES
Stop in and discuss your machinery needs. Talk with men who know the knit goods industry and can help you.
The Proctor Continuous Bleach System.
The Proctor Tray Dryer for Ladies All Nylon Hosiery.
See a color motion picture of a tray dryer in use in a hosiery mill.
The Proctor Con-O-Matic Washer for tubular knit goods.
The Proctor Con-O-Roll Washer.
The Proctor Loop Dryer and Curer.
"REDMANIZED" fabrics. Discuss this important process with Representatives of Redman Process American Corp.
PROCTOR & SCHWARTZ • INC.
PHILADELPHIA 20 • PA.

The Underwear Institute will hold its annual meeting at this hotel—Chalfonte-Haddon Hall (foreground)—on April 25. See map, p. 165.

KNITTING SHOW
April 25-29
Atlantic City

quilting machines in operation.
A. Friedmann — J. Renger
C. A. Friedmann — R. Thierfelder
G. B. Groh — C. Bilder
L. Engle — S. Hoffman
D. Miller — Steinberg Bros.
M. Radvanyi

LINGERIE MERCHANDISING (publication) 53
New York, N. Y.

MALINA CO. 327
New York, N. Y.
(See Atlantic Rayon Corp.)

MARKEM MACHINE CO. 295
Keene, N. H.
Exhibiting: Industrial marking machines; new machine for imprinting variables on string tags; machine for marking box ends; machine for printing pressure sensitive labels.
R. C. Mensel — G. Fretz
C. H. Cheeseman — J. S. Remmel
H. Clark

MARVEL SPECIALTY CO. 208
Paducah, Ky.
Exhibiting: The Marvel pull thread repair machine with iron attachment; Marvel-Meter quality control device and system; Olcott hosiery carrying trays.
G. Harralson — J. Haines, Jr.
L. T. Ballard — J. Haines, III
M. Brown — G. R. Haines
C. G. Newton — G. T. Smith

MASUREL WORSTED MILLS, INC. 563
Woonsocket, R. I.
Suppliers of: French spun worsted knitting yarns in zephyrs, novelty worsted and rayon twists, worsted and natural silk blends, fancy blends, cashmere and angora.

EDWARD J. McBRIDE CO., INC. 26
Philadelphia, Pa.
Suppliers of: Creels, cone holders, stop motions, tension controls, warp beams, metal and wool rolls.

THE MERROW MACHINE CO. 270
Hartford, Conn.
Exhibiting: "Q" series shell stitch machine for sewing on 3-thread decorative edge finish; 2-needle overedging machine for providing strong overseam on knit and woven fabrics.
J. M. Washburn — H. F. Stolzenberg
W. M. Baker — J. Washburn

METLON CORP. 148
New York, N. Y.
Exhibiting: Novelty metallic yarns, Metlon, non-tarnishing metallic yarn, two-toned Metlon, Metlon-Mylar.
A. C. Brucks, pres.
E. W. Dunham, Jr., metropolitan sales mgr.

CLARENCE L. MEYERS & CO. 305
Philadelphia, Pa.
Exhibiting: Nylon Mylast Crimp Stretch yarn for warp, Komet, and argyle socks; Dacron Mylast now being used in conjunction with stretch nylon for cross dye effects; new fabrics and garments of spun Orlon and Dacron; elasticized and thrown nylon; Durene fabrics, hosiery, and underwear.
C. L. Meyers — D. J. Strauss
M. M. Meyers — E. W. Fowler
G. E. Meyers — L. Eschelbach
J. A. Meyers — H. W. Schrader
E. N. Meyers — F. W. Johnston
C. E. Bender — E. Windle

MILLER WRAPPING & SEALING MACHINE CO. 121
Chicago, Ill.
Exhibiting: Corley-Miller Model BL wrapping setup for sheets, pillow cases, diapers, blankets, and related textile items; movies of this equipment in operation.
F. Faletti
R. H. Freeman

MILTON MACHINE WORKS, INC. 335
Milton, Pa.
Exhibiting: Aluminum alloy tricot beams equipped with forged aluminum heads, 13¾" dia. and 21" dia.
J. S. Billig, sales mgr.
C. J. Anchor, ch. engr.
W. D. Leinbach, pres.
G. W. Blunt, prod. mgr.

MODERN TEXTILES MAGAZINE (publication) 78
New York, N. Y.

L. P. MULLER & CO. 466
Philadelphia, Pa.
H. D. Muller, partner
H. G. Harper, partner
J. M. Matlack, partner
J. T. Hawthorne, partner
F. H. Ward, partner
T. H. Nicholson, partner
H. R. Penington, sales rep.
E. O. Penington, sales rep.
T. C. Brown, sales rep.
A. B. Reid, sales rep.
W. J. Scott, sales rep.
W. C. Muller, sales rep.
H. R. Peck, sales rep.
T. Dove, sales rep.
R. A. Eldridge, sales rep.

THE NARROW FABRIC CO. 401
Reading, Pa.
Exhibiting: Braided, knitted, woven, and lace elastics for knee-length hosiery, self-supporting hosiery, and knit underwear.
S. R. Fry, pres.
J. W. Sweeney, ex. vice-pres.
A. G. Manderbach, vice-pres. mfg.

Narrow Fabric Co. continued
O. E. Huber, vice-pres. prod.
T. M. Fry, asst. sec.
G. Dudley, Jr., asst. treas.
F. S. Pierce, gen. sales mgr.
S. M. Shirey, export mgr.

NAHM **Stage**
National Assn. of Hosiery Mfrs.
New York, N. Y.

NATIONAL BUNDLE TYER CO. 330
Blissfield, Mass.
Suppliers of: Package tying machinery, loopers, and stringing machinery.

NKOA **Stage**
National Knitted Outerwear Assn.
New York, N. Y.

NATIONAL VULCANIZED FIBRE CO. 470
Wilmington, Del.
Suppliers of: Fiber products.

NEW YORK PRESSING MACHINERY CORP. 384
New York, N. Y.
Exhibiting: Several 30" x 60" steam presses for steaming and blocking sweaters, including one press equipped with a fully automatic conveyor capable of continuous or semi-continuous operation.
H. E. Cole, gen. sales mgr.
M. Puretz, vice-pres.
S. Berl, sales rep.
L. Chase, engr.

RICHARD C. O'BRIEN YARN 293
Philadelphia, Pa.

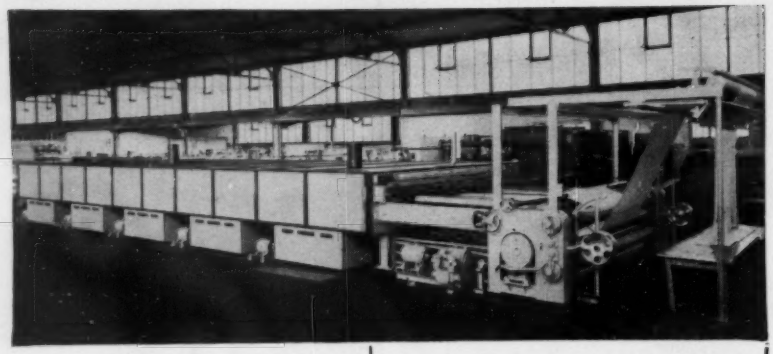
ONYX OIL & CHEMICAL CO. 346
Jersey City, N. J.
Exhibiting: Dyeing and finishing compounds of particular interest to the knitting industry.
L. P. Brick, vice-pres.
A. R. Jenny, gen. sales mgr.
A. C. MacKey, dir. industrial div.
R. A. Watson, salesman
J. W. Huber, salesman
R. Raas, export div.
S. J. Singer, Jr. export div.
E. Yzewyn, export div.
H. Keller, export div.

THE ORDNANCE GAUGE CO. 199
Philadelphia, Pa.
Exhibiting: Automatic circular knitting machinery.
R. E. Zeruneith, pres.
J. S. Abramski, treas.
M. M. Rothkopf, sales rep.
P. G. Belaief, sales rep.

PANAMERICAN PUBLISHING CO., INC. 468
New York, N. Y.

PARAMOUNT TEXTILE MACHINERY CO. 313
Chicago, Ill.
Exhibiting: The improved Paramark transfer machine, Model 3; Presetter Junior, Model 10; hosiery drying forms and table; nylon hosiery processing forms.
W. P. Pope, vice-pres.
J. C. Fenley, sales mgr.
W. H. Albertson, rep.
L. J. Albertson, rep.
O. A. Siegel, rep. — H. Campbell, rep.
L. D. Ross, rep. — G. E. Dunn, rep.
W. E. Pike, rep. — G. Heuer, rep.
H. Richter, rep. — M. Gustafson, rep.

JOSEPH PERNICK CO., INC. 343
Maspeth, L. I., N. Y.
Exhibiting: Calender; measuring and examining machine; stop motion for Raschel machine.
L. Pernick, pres.
D. Pernick, treas.
D. Haft, sec.

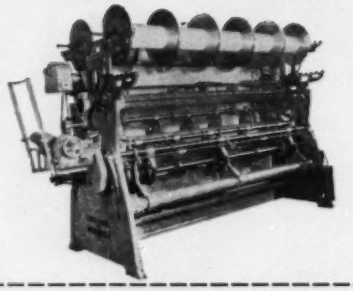


REINER MACHINES

for Faster, Lower-Cost Production

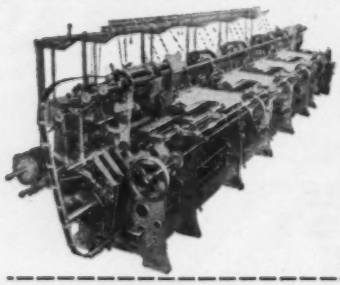
THE FAMATEX TENTERING MACHINE

Suitable for all kinds of fabrics. It is unique in that it combines tentering, drying, cooling and conditioning. Fabric quality is incomparably higher than that produced by formerly used tentering and drying machines. This unit is a product of the world famous FAMATEX GMBH in Western Germany.



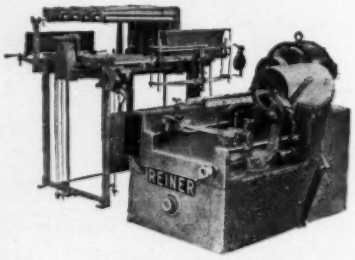
THE REINER RASCHEL MACHINE

Up to 5 guide bars and up to 56 gauge—particularly suitable for elastic power nets, tulles or coarser goods such as shoe tops, draperies, etc. Sturdy construction permits higher Raschel speeds. One or two needle bars. Reiner are the oldest American Raschel machinery makers.



THE REINER SECTIONAL WARPERS

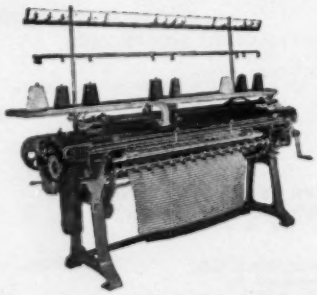
are leaders in their field. They are available in lengths up to 84" and their many features assure highest grade warps at top speeds with automatic devices for rugged, trouble-free operation. They are perfect teammates for Reiner Creels, and can be found in many mills here and abroad. Readily usable with any make of creel.



THE REINER FULL FASHIONED SWEATER MACHINE

The first American-built machine of its kind. It is fully automatic and faster than any of the converted types available.

It is offered in all popular sweater gauges—knitting width 28" and 32"—features automatic V-neck attachment—automatic fashioning control—constant carrier lead—single coulier-ing, etc. rugged construction—highest speeds.



THE SCHAFFHOUSE FLAT POWER MACHINE

The Schaffhouse fully automatic flat power machine designed expressly for collars and trimmings for full fashioned as well as cut and sewn garments. A fast, versatile, efficient and durable unit of world renown. Up to 20 needles per inch—up to 60" width. Unique features throughout.

Visit us at Booth Nos. 66 to 73 inclusive
KNITTING ARTS EXHIBITION, Atlantic City, N. J., April 25 to 29.

ROBERT REINER INCORPORATED

10 MINUTES FROM TIMES SQUARE

Take Bus Nos. 61 or 67, from Platform No. 60, Port Authority Bus Terminal, 41st Street and 8th Avenue, New York City. Get off at Pleasant Avenue, Weehawken, New Jersey. From there turn left and walk through the underpass up to Gregory Avenue . . . TELEPHONE: UNION 7-0502, 0503, 0504, and 0505. From New York City call LONGACRE 4-6882.

FOUNDED IN 1903 — 550-564 GREGORY AVENUE, WEEHAWKEN, NEW JERSEY

PHILADELPHIA DYE WORKS 369
Philadelphia, Pa.
Exhibiting: Space for visitors.
L. H. Mason, pres.
M. M. Anderson, vice-pres.
J. A. Knipe, sec.
T. O'Donnell, N. Y. rep.
J. B. Egee, chem. engr.

PHILADELPHIA METAL DRYING FORM CO., INC. 190
Philadelphia, Pa.
Exhibiting: Full line of preboarding equipment, including aluminum single and double preboarding forms for men's, ladies', and children's hosiery and "Adjustoe Forms" (adjustable toe) for flexibility in changing size ranges; multi-shape forms and attachments for boarding an unlimited variety of hosiery styles without an additional investment in new equipment; electrically heated drying equipment, including thermostatically-controlled "Air-Flow" table; steam-operated drying form tables.
Joseph Seligman, pres.
Thomas A. Temple, vice-pres.

PHOTOBELL SALES CORP. 106
New York, N. Y.
Suppliers of: Photoelectric and electronic devices, including burglary, fire and smoke alarms; custom-built machines for counting, inspecting, testing, measuring, controlling, etc.

POLA ENTERPRISES, INC. 561
Moorestown, N. J.
Exhibiting: The Pola Gauge Attachment on Merrow, Willcox & Gibbs, and Singer machines—eliminates bar tacking bulk and does away with extra handling and trimming.
A. Palumbo, pres.
J. W. Grodin, treas.

PRECISION KNITTING MACHINE CO. 552
Syracuse, N. Y.
Suppliers of: Spring needle knitting machines.

PROCTOR & SCHWARTZ, INC. 557
Philadelphia, Pa.
Exhibiting: Proctor continuous combination fluorescent dyeing and bleaching range for tubular knit goods; Con-O-Matic washer; tray dryer for ladies' all nylon hosiery.
W. H. Poole
C. S. Tiers — P. L. Schaffer
W. J. Merrigan — T. Craig
D. D. Cunningham — N. Worthington
F. Redman, Redman Process American Corp.

THE PROSPERITY CO., INC. 159
Syracuse, N. Y.
Suppliers of: Dry cleaning and pressing machinery.

QUEENS MACHINE CO. 216
Brooklyn, N. Y.
Exhibiting: Queens Model "B" fully automatic "V" type flat machine; Model CJ flat Jacquard machine for production of multi-colored Jacquard design collar, sleeve, and waistband trims for full-fashioned and cut and sewn sweaters; Model R-100 Raschel sample machine; Model W-101 60" indirect pin type warping machine; flat double head border machine; circular string machine; spare parts, accessories, etc.
R. F. Lanthier, mgr.
J. Miakovsky, engr.
C. Hetu, tech.
R. M. Zimic, salesman

RADIO CORP. OF AMERICA 379
Camden, N. J.

THE REECE CORP. 427
Waltham, Mass.
Exhibiting: Model 101 eyelet and buttonhole machines; Model S2 straight hole buttonhole machine; Model S2 label sewer; Model S2 tacker.
J. H. Pikul, gen. sales mgr.
O. F. Christiansen, adv. & prom. mgr.
F. O. Paul, mgr., Philadelphia off.
J. L. Cruden, mgr., N. Y. off.
H. Rainone, mgr., Brooklyn off.
J. Hunter, mgr., Newark off.

RELIANCE ELEC. & ENG. CO. 437
Cleveland, Ohio
Suppliers of: Electric motors, motor-generator sets, and other specialized electronic and rotating motor controls.

ROBERT REINER, INC. 66
Weehawken, N. J.
Exhibiting: Full-fashioned sweater machine; Schaffhouse fully automatic power knitting machine; sectional warper; magazine creel section; Famatex tentering machine.
F. Lambach — J. Keogler
K. T. Marx — W. Horn

RICHMOND OIL, SOAP & CHEMICAL CO., INC. 202
Philadelphia, Pa.
Exhibiting: Lanorich finish—lanolin finish for ladies nylon hosiery; Coning Lubricant 353 and Coning Lubricant 150—anti-static lubricants for coning all types of synthetic yarns; PirNoil 113—yarn lubricant for knitting unsized nylon yarn; Rosperse—a dyeing assistant and levelling agent for ladies nylon hosiery; Lubric 600—new lubricant-cleaner for full-fashioned and seamless needles; Lubros—a group of synthetic, non-petroleum, water-soluble, non-staining needle lubricants; Nyltex trough solutions for full-fashioned knitting of sized and unsized yarns; Richclean 532 for cleaning full-fashioned needles, sinkers, and dividers.
W. Alkus, vice-pres.
M. W. Levi, tech. dir.
H. M. Rubin, sales mgr.
J. E. Gallman, sales rep.
J. W. Lederer, sales rep.

ROCHAMBEAU WORSTED CO. 277
Providence, R. I.
(See Percy A. Legge)

ROYAL COTTON MILL CO. 104
Wake Forest, N. C.
(See Sellers Mfg. Co.)

ROYERSFORD NEEDLE WORKS, INC. 461
Royersford, Pa.
Exhibiting: Spring beard needles, sinkers, and specialties.
R. W. Breidenbach
F. O. Heller
C. Bortz

JOHN J. RYAN & SONS, INC. 146
New York, N. Y.
Suppliers of: Cotton, rayon, and wool waste; felt and shoddy.

SAUQUOIT SILK CO., INC. 382
Scranton, Pa.
Exhibiting: Space for visitors.
C. L. Havey, pres.
E. C. West, vice-pres.
P. E. Walder, Jr., vice-pres.
T. R. Stretton, export mgr.
M. H. Smith, sales rep.
E. P. Schwarze, sales rep.
W. H. Hutchinson, sales rep.
W. H. Hurd, sales rep.
J. L. Radics, tech. sales service

SCHOLLER BROS., INC. 463
Philadelphia, Pa.
Exhibiting: Dura Beau and Lanolized finishes for conventional and stretch stockings and knitted fabrics.
E. S. Atkinson, salesman
L. M. Boyd, salesman
W. A. Daniel, salesman
E. J. Fitzgerald, Jr., salesman
C. W. Jones, salesman
J. F. Noble, salesman
D. E. Robertson, salesman
J. O. Sweitzer, salesman
C. H. Schepmoes, salesman
C. H. Schuettler, salesman
W. R. Sargent, salesman
W. S. Truette, salesman

SCOTT TESTERS, INC. 297
Providence, R. I.
Exhibiting: IP-2 Incline-Plane Serigraph for tensile and hysteresis testing with capacities from 4 to 16 grams tensile for single fibers and 0 to 2,000 grams tensile for yarn; Model T-1 twist counter for twist determination of plied and cabled yarns and thread; Model DH tensile tester for complying with ASTM specifications for synthetic fabrics and single ends; tensile tester X5 for yarn and thread.
J. E. Hargreaves, mgr.
J. Klinck, sales rep.
H. W. Horton

SCOTT & WILLIAMS INC. 231
New York, N. Y.
Exhibiting: Scott & Williams circular knitting machines and attachments for manufacture of infants', children's, men's, and women's hosiery; Brinton machines for manufacture of underwear, outerwear, foundation garments, and fabrics.

KNITTING SHOW
April 25-29
Atlantic City

SCOVILL MANUFACTURING CO. 436
Waterbury, Conn.
Exhibiting: New "Gripper" snap fastener with the radial rib socket.
P. H. Dunn, N. Y. rep.
E. F. Dillon, N. Y. rep.
J. R. McAteer, N. Y. rep.
W. R. Pothier, N. Y. rep.
P. M. Coholan, Baltimore rep.
R. W. Hall, Waterbury rep.
K. W. French, Waterbury rep.

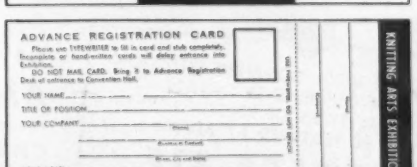
SELLERS MANUFACTURING CO.
SELLERS DYEING CO. 14
Saxapahaw, N. C.
Exhibiting: Combed knitting yarns of all descriptions, including natural, package dyed, mercerized, Durene, Nylile, Royal Egyptian, Elasticot, Royal Heather, nylon, Dacron, Orlon, blends, 6s through 100s, single and ply, for hosiery, underwear, and outerwear.
B. E. Jordan, pres. & treas.
B. E. Jordan, vice-pres.
F. Longerier, vice-pres. & sales mgr.
J. M. Neel, gen. supt.

SHELL OIL CO. 76
New York, N. Y.
Exhibiting: Shell Vexilla Oil 117, a new needle oil for use on full-fashioned knitting machines; Shell Alvania grease.
C. Colerick, staff engr., N. Y.
R. Cokinda, div. lub. mgr., N. Y.
W. Landis, div. lub. mgr., Baltimore
K. Nonweiler, div. lub. mgr., Atlanta
W. Niedermeyer, asst. div. lub. mgr., N. Y.
B. Davis, dist. ind. prod. rep.
L. Cattling, dist. ind. prod. rep.
R. Skord, dist. ind. prod. rep.
J. Gilmore, dist. ind. prod. rep.
T. Klement, sales prom. adv. rep.

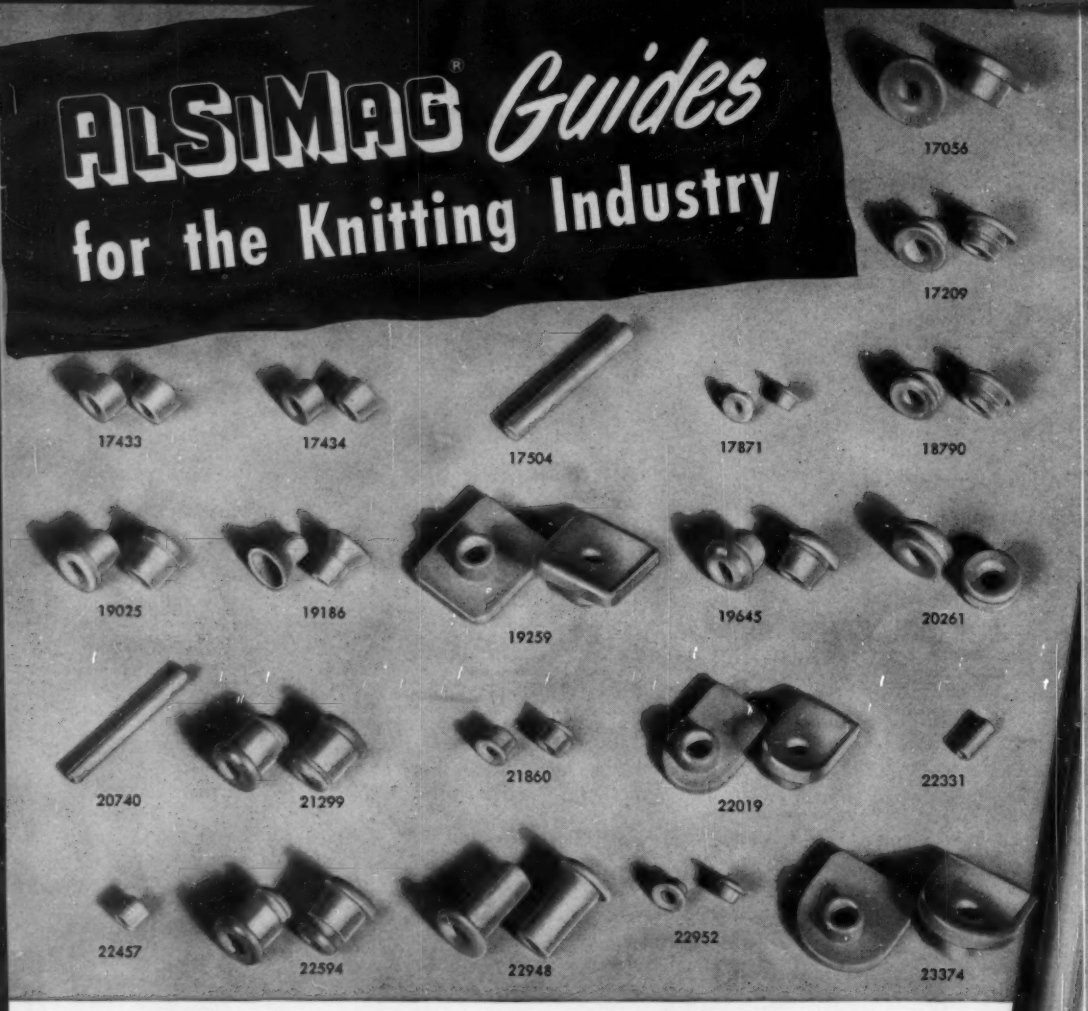
SIMPLEX PACKAGING MACHINERY, INC. 121
Oakland, Calif.
(See Amsco Packaging)

SINGER SEWING MACHINE CO. 289
New York, N. Y.
Suppliers of: Industrial sewing machines.

Be sure to get Knitting Show tickets before you go to Atlantic City. They are free and will save you time when you first visit the exhibition hall. Write to any exhibitor or Editor "Textile Industries" 806 Peachtree St., N. E., Atlanta 5, Ga.



ALSiMAG® Guides for the Knitting Industry



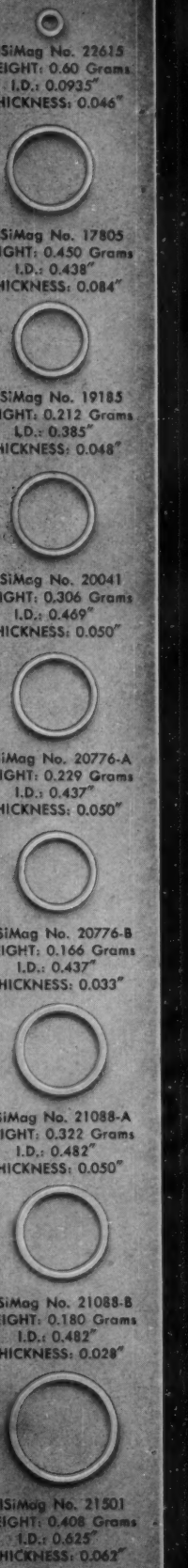
USES

- Yarn Box Eyelets
- Trough Eyelets
- Snapper Eyelets—Tapered, Shouldered, Plate, Grooved
- Oil Cup Eyelets
- Stop Motion Eyelets and Inserts
- Carrier Tubes
- Trough Rods
- Tension Rods
- Tension Rings
- Drop Wire Rings
- Miscellaneous Guides for Special Purposes; for example: inserts for fixtures on Trough Floats

ADVANTAGES

1. *Quality.* Smooth, homogeneous material of great hardness. Uniform physically and dimensionally.
2. *Long Life.* Test these guides on finer denier synthetic yarns at high speed and high tensions. In every case reported to us, AlSiMag guides have shown a material improvement over any former guides used.
3. *Fewer Replacements.*
4. *Uniformity* of guides makes for uniform high quality in finished products.
5. *Lighter Tensions.* AlSiMag guides are available in controlled finishes.
6. *Electrically Conductive* guides (AlSiMag 193) are available to aid in the control of static.

TEST SAMPLES SENT ON REQUEST.



THE MOST COMPLETE SELECTION OF GUIDES EVER SHOWN FOR ALL TYPES OF KNITTING WILL BE FEATURED BY **AlSiMag**

SPACE 215

KNITTING ART EXPOSITION

April 25 thru April 29

54TH YEAR OF CERAMIC LEADERSHIP

AMERICAN LAVA CORPORATION

A Subsidiary of Minnesota Mining and Manufacturing Company

CHATTANOOGA 5, TENNESSEE

SALES ENGINEERS: NORTH AND EAST: Jay S. Gosnell, 671 Broad St., Newark, N. J., Mitchell 2-8159. SOUTHEAST: Joe E. Spearman, American Lava Corporation, Chattanooga 5, Tenn., 5-3411. ALL OTHER AREAS: J. B. Shacklett, American Lava Corporation, Chattanooga 5, Tennessee, 5-3411. CANADIAN REPRESENTATIVE: Ian M. Haldane and Company, Post Office Box 54, London, Ontario, Canada. CONTINENTAL EUROPEAN REPRESENTATIVE: P. C. Huguenin Luzern, Gerbergasse 6, Luzern, Switzerland

SMITH, DRUM & CO. 129
Philadelphia, Pa.
Exhibiting: Package dyeing machines; package extracting and drying machines; rotary type dyeing machines; circulating skein dyeing machines; paddle type dyeing machines for sweaters.
H. S. Drum
R. N. Smith
J. P. G. Patton
W. C. Dodson
A. P. March
A. Bagian
R. W. Foltz
W. A. Fuchswanz
J. M. Ballentine
P. M. Parrott
S. Huffstetler

SOMERSET KNITTING INC. 158
Plessisville, Quebec, Canada

SONOCO PRODUCTS CO. 517
Hartsville, S. C.
Exhibiting: A complete line of cones, tubes, spools, cots, cores, bobbins, etc.
W. H. Miller, dir. of sales
A. H. Gildersleeve, sales mgr. no. div.
J. K. Taylor, sales mgr. so. div.
L. H. Stokes, asst. sales mgr. so. div.
G. K. Lewis, asst. sales mgr. no. div.
W. B. Broadbent, salesman
P. F. Williams, salesman
W. K. Lewis, Jr., salesman
W. R. Peacock, salesman
W. M. Carpenter, salesman
M. B. Griffin, salesman
B. H. Biggs, salesman
J. W. Hillsgrove, salesman
H. P. Lamarche, salesman
E. J. Cotter, salesman
C. A. Burnham, salesman
W. R. Gray, salesman
O. D. Duckett, salesman
O. F. Fayne, salesman
L. C. Wall
A. L. Carter
J. D. Watford
H. Campbell
J. A. Reagan, adv. mgr.

SOUTHERN TEXTILE MACHINERY CO. 205
Paducah, Ky.
Exhibiting: Complete line of Sotco automatic inspection machines for ladies full-fashioned and seamless hosiery; Model "P" looper for knitted outerwear; looper stands and other accessories.
T. A. Paxton, pres.
T. H. DeSpain
R. N. Parkin
A. George
W. H. Hale

SPECIALTY MANUFACTURERS & SALES CO. 261
Acworth, Ga.
Suppliers of: Pneumatic seamless hosiery turning machine.

MORRIS SPEIZMAN CO., INC. 170
Charlotte, N. C.
Exhibiting: Bowman automatic transfer machine; Sarco preboarding machine; various knitting machines, parts, and supplies.
M. Speizman, pres.
T. Valenstein, vice-pres.
M. P. DeLeo, export mgr.
A. C. Gregg, shop foreman
J. Barnes, salesman
A. McCance, salesman

STAMPAGRAPH CO., INC. 147
New York, N. Y.
Exhibiting: Hot iron transfers in one, two, and three colors; embossed labels and seals, including gummed and ungummed and Kleenstick pressure sensitive.
G. Chadwick, pres.
C. Weilbacher, sales mgr.

STANDARD-COOSA-THATCHER CO. 317
Chattanooga, Tenn.
Suppliers of: Yarns and threads.

STEELE CANVAS BASKET CO., INC. 40
Cambridge, Mass.
Exhibiting: Canvas baskets, trucks, hampers, work benches, shipping bags, and a newly developed doffing basket.
Albert E. Pratley, pres.
Gordan L. Whynaught, sales mgr.

STERLING ENGINEERING & MANUFACTURING CO. 149
Wilkes-Barre, Pa.
Exhibiting: Self-stacking boards for handling of bobbins, cones, tubes, quills, etc., made of cadmium-plated and stainless steel; aluminum quill boards and self-stacking tube boards with flexible holder for yarn shrinkage; also yarn handling trucks.
G. McGee, vice-pres. sales

STEWART-WARNER CORP. 504
Alemite Division
Exhibiting: Lubrication equipment, including Oil-Mist automatic lubrication systems, centralized lubrication systems, portable power equipment, hand lubricators, and lubrication fittings.
J. Z. Esbenshade, field sales rep.
M. Smith, field sales rep.

STOP-MOTION DEVICES CORP. 193
Brooklyn, N. Y.
Exhibiting: "Wesco" electric stop motions for all types of knitting machines; press-off detectors; roll sizer; latch needle detector; twin-tie cone holders; electronic devices; "Sentinel" press-off detectors; "Guardian" rib hole detectors.
N. J. Tellerman, mgr. sales & service
F. Weston, export mgr.
E. Vossin, dev. & engr.
G. F. Connors, sales & service
V. G. Chaplin, sales and service

Booth 562

That's where you'll find editorial, business, and circulation representatives of TEXTILE INDUSTRIES. On the extreme left as you enter the exhibition hall. Pay us a visit, won't you. We'll be glad to see you and chat with you.

STRETCH-TEX CO., INC. 146
Talladega, Ala.
Suppliers of: Covered rubber knitting and weaving yarns.

SUPREME KNITTING MACHINE CO., INC. 451
Ozone Park, N. Y.
Exhibiting: A new machine to be shown for the first time; a 26" 18-cut Model SAAF/0; a 20" 20-cut Model ML; latest style 20" Model SR machine; and body size Model MJ machine.
S. Mischon, pres.
L. Mischon, vice-pres.
S. Mischon, sec.
H. Agulnek, vice-pres., res. & dev.
I. Golden, sales mgr.
H. A. Strasburg, dir. foreign sales
B. Narker, dir. purc. & adv. mgr.
Al Malluck, so. sales rep.
C. Dupuis, tech.
J. Teitelbaum, tech.
J. Radin, tech.

SYNFOAM YARNS, INC. 327
Lowell, Mass.
(See Atlantic Rayon Corp.)

SYNTHANE CORP. 372
Oaks, Pa.
Exhibiting: Laminated plastics in the forms of sheets, tubes, rods, and fabricated parts, with specific emphasis on the use of laminated plastics.
E. E. Smith, sales mgr.
H. Widdop, asst. sec.
C. B. Moss, sales rep.
J. K. Johnson, sales rep.
R. B. Galloway, sales rep.
D. Garrison, sales rep.
O. L. Smith, sales rep.
M. B. Firehock, sales rep.

SYNTHETIC YARNS, INC. 327
Lowell, Mass.
(See Atlantic Rayon Corp.)

TELESONIC CORP. 36
New York, N. Y.

KNITTING SHOW
April 25-29
Atlantic City

TEMPLON SPINNING MILLS, INC. 348
Brooklyn, N. Y.
(See Chemspun Yarns, Inc.)

TEXTILE AGE (publication) 400
Greenwich, Conn.

TEXTILES, INC. 367
Gastonia, N. C.
Suppliers of: Fine combed peeler and combed Sak; cotton yarns, gassed and ungassed, 4s to 120s single and ply.

TEXTILE INDUSTRIES (publication) 562
Atlanta, Georgia
Exhibiting: Technical books and literature for knitting mill management and production personnel.
John C. Fonville, editor
Milton C. May, assoc. ed.
Leon E. Seidel, assoc. ed.
John C. Cook, bus. mgr.
Walter Mitchell, Jr., adv. mgr.
Arthur C. Shaw, bus. rep. Boston
George Isherwood, bus. rep. Philadelphia
William K. Hoffman, bus. rep. New York
Walter C. Valentine, circulation rep.

TEXTILE MACHINE WORKS 510
Reading, Pa.
Suppliers of: Full-fashioned hosiery knitting machines, braiding, insulating, winding, and measuring machines.

TEXTILE WORLD (publication) 291
New York, N. Y.

THREADS-INC. 64
Gastonia, N. C.
Exhibiting: Cotton sewing threads; nylon, Dacron, and Orlon sewing threads; ready wound thread bobbins wound on a new plastic one-piece shell in both cotton and nylon; cotton knitting yarns.
J. Gottlieb, pres.
J. Land, vice-pres.
H. N. Feist, vice-pres.
A. Aronson, sales
V. Catalano, sales
I. Simerman, sales
E. Frasch, sales
G. LeValley, sales
E. Sheridan, sales
J. Payson, sales

TOMPKINS BROS. CO. 449
Syracuse, N. Y.
Suppliers of: Spring needle body knitting machines.

TORRINGTON CO. 301
Torrington, Conn.
Exhibiting: Excelsior knitting and sewing machine needles and Torrington's manufacturing facilities.
T. H. Mueller, asst. to pres.
W. W. Blelock, sec.
B. T. Virtue, gen. sales, mgr.
E. F. Didier, asst. gen. works mgr.
A. Klinkoski, supt. Excelsior pl.
W. H. Smith, asst. supt. Standard pl.
F. Stefanov, supt. FF, leading, sinker, & surgical depts.
W. R. Reid, Jr. asst. gen. sales mgr., mgr. needle div.
C. H. Rowe, asst. sales mgr., needle div.
L. W. Losee, sales div.
D. J. Reid, pres.
H. M. Deming, vice-pres.
L. R. Whitcomb, sales div.
A. V. Maurer, br. mgr. Boston
F. A. Howard, sales div. Boston
C. R. Johnson, br. mgr. Chicago
W. B. Meeteer, sales div. Chicago
H. D. Blake, br. mgr. Greensboro
H. S. Gordon, sales div. Greensboro
C. Epps, sales div. Greensboro
G. T. Stanley, sales div. Greensboro
C. T. Spalding, br. mgr. N. Y.
W. Myers, Jr. sales div., N. Y.
R. L. Brace, sales div. N. Y.
J. J. McCaffrey, sales div. N. Y.
D. A. Burghoff, sales div. N. Y.
W. C. Wiechardt, br. mgr. Philadelphia
J. W. Beaber, sales div. Philadelphia
H. E. Gosling, sales div. Philadelphia
(*Continued on page* 181)

MORRIS SPEIZMAN CO., INC.

Hosiery Mill Machinery
Booths 170-177

We invite you to view some of the newest developments in hosiery manufacturing.

SARCO—
Pre/post Boarder for men's, children's, misses hose.

SHOAF:—
Automatic Hosiery Turning Machine.

"CAROLINA" KNITTERS:—
for men's and women's hose.

BOWMAN—
Automatic Transfer applying machine.

MORRIS SPEIZMAN CO., INC.
508 W. Fifth St. — Charlotte, N. C.

KNITTING SHOW
April 25-29
Atlantic City

Torrington Co. continued
P. S. Warner, sales div. Philadelphia
W. Patz, sales div. Philadelphia
F. G. Stubbs, br. mgr., St. Louis
G. B. Walls, sales div., St. Louis

TRICOMA, INC. **438**
New York, N. Y.
Exhibiting: Full automatic circular knitting machine, Model CDF; full automatic double lock flat knitting machine, Model DLS; flat knitting machine, Model CSD; full automatic flat trimming machine, Model GDW; Morat automatic circular knitting machine for Wevenit type fabrics; 2 Moncenisio double cylinder Jacquard machines for coarse and fine half-hose; Everest overlock machine (5000 rpm).
Carl E. Weinberg, pres.
Walter W. Glocer, vice-pres.

TUBULAR TEXTILE MACHINERY CORP. **166**
Woodside, L. I., N. Y.
Exhibiting: Tube-Tex finishing machinery for circular knit fabrics, with emphasis on the use of this equipment in resin treatments and the finishing of acrylic fibers; a new type Tube-Tex tensionless calender designed specifically for sweater and outerwear fabrics.

E. Cohn	D. Ross
J. Cohn	E. Goodman
D. Foreman	F. Catallo
J. Sasson	H. Hixon
L. Rothenberg, Jr.	S. Snyder

TURBO MACHINE CO. **60**
Lansdale, Pa.
Suppliers of: Preboarding machines, boarding machines, and accessories.

TURNER TRANSFER, INC. **28**
Greensboro, N. C.
Exhibiting: Photographs of work performed.
G. M. Turner, pres.

E. W. TWITCHELL, INC. **143**
Philadelphia, Pa.
Suppliers of: Folders, wraps, envelopes, inserts.

UNDERWEAR INSTITUTE **Stage**
New York, N. C.

UNION SPECIAL MACHINE CO. **458**
Chicago, Ill.
Exhibiting: Industrial sewing machines, including: Style 39500 A for seaming nylon gowns and slips as well as panties where ½" elastic is to be crossed; Style 39500 F blind hemming machine for bottom of T shirts, polo shirts, and sleeves; Style 41400 AW hosiery seamer for seaming full-fashioned hosiery. Style 41300 XZ sweater seamer producing stitch Type 101 for seaming full-fashioned sweaters; Style 52800 R for attaching split tube borders to neck and arm hole of athletic shirts; turned top folder and intermittent feed tubing machine; Style 52700 BN flat elastic machine for attaching lace or elastic to tops of ladies' panties; Style 54400 E for attaching elastic to boxer shorts with built-in puller; Style 51400 BE enclosed elastic machine for hemming and simultaneously inserting an elastic band within the hem on tops and legs of ladies' panties and similar garments; Style 52900 BL safety stitch intermittent gathering machine for setting sleeves in blouses, uniforms, etc., and also miscellaneous gathering on various garments where the Union Special safety stitch is desired; Style 61400 A single-needle lockstitch machine for plain sewing operations.
T. S. Whitsel, vice-pres.
C. L. Rosenquist, asst. sales mgr.
A. J. Feigel, sales prom. mgr.
H. R. Kaiser, sales prom. dept.
L. M. Brown, mgr. prod. appl. dept.
B. W. Merz, mgr. Philadelphia off.
(*Continued on page* 183)

NOW is the time to equip for PROFITS

Profits can, and will, come your way only when you plan for them . . . work for them . . . equip for them! Replace old, obsolete, inefficient machines now. Plants equipped with modern, high speed Union Specials have an important advantage. Union Special machines are built to do the job faster . . . better . . . cheaper, and they stay on the job with minimum time out for repairs. YOU'RE AHEAD WHEN YOU USE UNION SPECIALS!

Helpful Bulletins

Union Special offers product application bulletins covering the manufacture of a number of different types of wearing apparel. Copies are available on request with no obligation. WRITE TODAY.

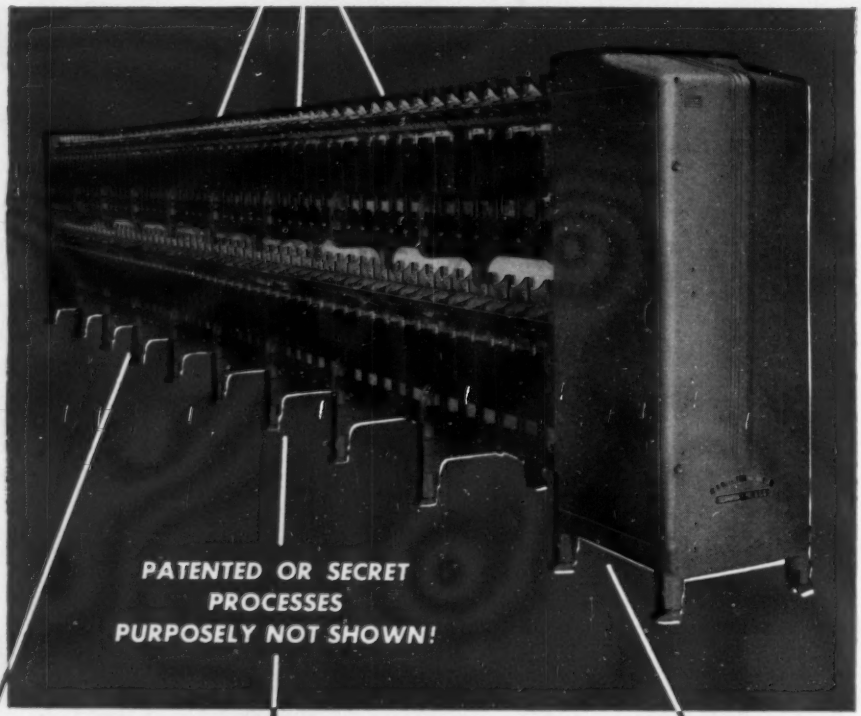
Bulletin No. 250:
"Dress Shirts and Sport Shirts."
Bulletin No. 251:
"Workmen's Service Garments."
Bulletin No. 252:
"Men's Shorts and Pajamas."
Bulletin No. 253:
"Overalls, Coveralls and Work Pants."
Bulletin No. 254:
"Men's Knit Underwear."
Bulletin No. 255:
"Women's Knit Underwear."
Bulletin No. 256:
"Knit Outerwear."
Bulletin No. 258:
"Class 61400 Lockstitch Machines."
Bulletin No. 260:
"Work Gloves."
Bulletin No. 263:
"Men's Clothing Manufacturing."

Union Special® MACHINE COMPANY

407 NORTH FRANKLIN STREET • CHICAGO 10, ILLINOIS

THIS TWISTER IS
3 MACHINES IN ONE!

NEW U. S. ACME Combo TWISTER



CONVENTIONAL UP-TWISTER

HEADLESS PACKAGE UP-TWISTER

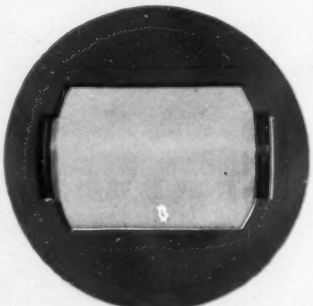
WITH PERMANENT MANDRELS

Now, with three twisters combined into one machine—THE NEW U. S. ACME COMBO TWISTER—throwsters can have new, money-saving versatility never before available in one basic production unit! The COMBO handles all types of synthetic yarns on straight, conical or bottle type supply packages and accommodates "Stretch Yarn" processes. Write, phone or wire for full information.

SEE ALL OF THESE U. S. ACME MACHINES IN OPERATION AT THE KNITTING SHOW

BOOTHS 178 to 182

- **T P TWISTER**
- **2-lb. pirns on COMBO TWISTER**
- **Vertical SPOOLER**
- **Special Machine for TASLAN & BANLON**

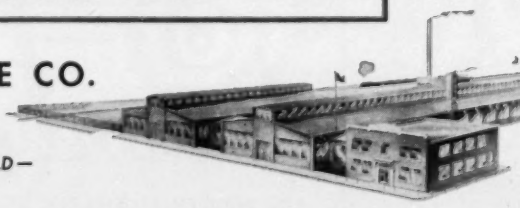


STRETCH YARN—Shown here is a headless package of Nylon "Stretch Yarn" twisted and processed on the new U. S. ACME COMBO TWISTER.

U. S. TEXTILE MACHINE CO.

SCRANTON 8, PENNA.

—OUR SERVICE POLICY LEADS THE FIELD—



THE HOME OF U. S. ACME MODERN THROWING EQUIPMENT

KNITTING SHOW
April 25-29
Atlantic City

Union Special continued

J. R. Haderly, asst. mgr. Philadelphia off.
L. D. Cassell, rep. Philadelphia
R. L. Smith, rep. Philadelphia
W. J. Price, rep. Philadelphia
R. S. Vogt, rep. Philadelphia
R. B. Foster, rep. Philadelphia
C. R. Batchelor, rep. Philadelphia
W. G. Booth, mgr. N. Y. off.
E. S. Rockney, asst. mgr. N. Y. off.
W. E. Palm, mgr. Boston off.
M. F. Groover, asst. to export mgr.

UNITED ELASTIC CORP. 102
Easthampton, Mass.
Exhibiting: Elastic webbing and braids for underwear, hosiery, and sportswear.
R. A. Waite
W. E. Dalby — E. R. Boehm
D. Cameron — F. L. Dorr
G. B. Weidhaas — J. DeBold

U. S. HOSIERY CORP. 482
New York, N. Y.

U. S. RUBBER CO. 280
Texile Division
New York, N. Y.
Suppliers of: Yarns.

UNITED STATES RUBBER CO. 315
Lastex Yarn & Rubber Thread Div.
New York, N. Y.
Exhibiting: "Lastex" and "Laton" elastic yarns; "Lactron" extruded rubber thread; "Revere" cut rubber thread and tape.
M. E. Bliss
H. B. Cobb — T. E. Parks
W. J. Connelly — C. M. Patterson
W. F. Giddings — P. J. Regan
P. Linke — P. L. Westphal

UNIVERSAL WINDING CO. 219
Providence, R. I.
Exhibiting: Unirail uptwister; Model 10 ring twister; No. 50 precision coner equipped with emulsion and all the latest attachments for winding various synthetic yarns.
R. Leeson — J. R. Breen
W. S. Warren — K. H. Gibson
H. H. Richardson — H. D. Kernan
T. L. Cotter — E. C. Parish
W. L. Paulhamous — C. E. Sullivan
F. P. Barrie — L. E. Efrench
F. J. Barrows — J. B. Brun

U. S. TESTING CO. 462
Hoboken, N. J.
Suppliers of: Testing, research, product development, quality control, for the textile and allied industries.

U. S. TEXTILE MACHINE CO. 178
Scranton, Pa.
Exhibiting: Completely new and modern throwing equipment.
J. P. Kingsley, pres.
P. J. Thomas, vice-pres.
A. W. Thomas, Jr., vice-pres. sales
S. E. Stahller, controller
N. F. Gubitose, asst. ch. eng.
F. C. Nave, so. rep.
R. Williams, res. dept.
V. A. Schiffer, tech. dept.

UTICA NOVELTY & MILL SPECIALTY CO. 160
Utica, N. Y.
Exhibiting: 12" knife combination cutting and winding machine with automatic spacing attachment; Utica conveyor for pressing folded garments; automatic lay-up machine; collarette cutter; Utica extractor loader and unloader.
J. A. Firsching, Jr.
J. A. Firsching, III
D. Firsching

VALDESE MFG. CO. 545
Valdese, N. C.
Suppliers of: Yarns.

VEEDER-ROOT INC. 537
Hartford, Conn.
Exhibiting: Counters for recording production, piece work, efficiency, and for control of knitting machinery; the new Vary-Tally, a multiple unit reset counter.
G. L. Logan, sales mgr. counting devices div.
T. Nelson, field sales mgr. counting devices div.
W. T. Heydt, dist. mgr. N. Y.
D. Addison, dist. engr. W. N. Y.
R. W. Moller, dist. engr. N. Y.
W. B. Brooks, dist. engr. N. Y.
R. E. Walker, dist. engr. Philadelphia

VENANGO ENGINEERING CO. 554
Philadelphia, Pa.
Exhibiting: Textile dyeing equipment.
William Stegers, pres. & ch. eng.
C. H. McCandless, vice-pres. & sales mgr.
Arthur Pickup, pur. agt.

VIRGINIA-CAROLINA CHEMICAL CORP. 107
New York, N. Y.
Exhibiting: New and interesting Vicara blends in knitwear.
J. H. Karrh
M. Clark — W. Backus
L. Billings — R. H. Stinnette

VICTOR RING TRAVELER CO. 42
Providence, R. I.
Exhibiting: Space for visitors.
E. R. Jerome, pres. & gen. mgr.
B. H. Waterman, service engr.
E. L. Coanor, service engr.
E. Cranshaw, service engr.

WALTON LABORATORIES, INC. 446
Irvington, N. J.
Exhibiting: Complete line of equipment for maintaining humidity at the most desirable level, including portable room type humidifiers, duct type humidifiers, and permanently installed unit type humidification systems, as well as unit type dehumidifiers.
W. Feldermann, pres.
J. B. Feldermann, vice-pres.
J. R. Lewis, sales mgr.-industrial
H. Puttbach, sales rep.

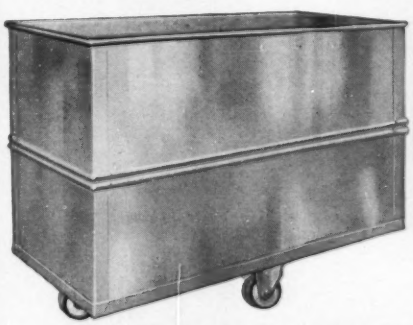
WESTINGHOUSE ELECTRIC CORP. 29
Pittsburgh, Pa.
Suppliers of: Motors, motor-generator sets, switches, bus duct, industrial lighting.

WHITIN MACHINE WORKS 425
Whitinsville, Mass.
Exhibiting: Space for visitors.
H. Moss, vice-pres.
R. F. Waters, mgr. tricot div.
C. May, tricot service engr.
G. F. McRoberts, adv. mgr.

PAUL WHITIN MFG. CO. 277
Gilbertville, Mass.
(See Percy A. Legge)

WILDMAN MFG. CO. 225
Norristown, Pa.
Exhibiting: Full-fashioned hosiery machines—54 gauge non-run and 75 gauge standard; circular knitting machines for outerwear fabrics.
K. Howie — L. Bickel
F. E. Paul — L. Brooke
J. J. Brennan — F. B. Wildman, Jr.
J. Hill

WILLCOX & GIBBS SEWING MACHINE CO. 353
New York, N. Y.
Exhibiting: Sewing machines especially designed for use in the knit goods industry, including the completely new high speed "Flatlock" machine with automatic lubrication which is capable of operating at speeds up to 4000 stitches per minute, a completely new "Superlock" with which it is possible to produce one row of 401 type seaming and one row of two-thread 503 type overedging simultaneously, regular "Superlock" three-thread seaming machine, and a Type 950-ACWS machine for attaching elastic.
N. Wonnacott, vice-pres. & gen. sales mgr.
A. M. Miller, sales mgr.
A. E. Selby, mgr. Philadelphia dist.
L. E. Connolly, mgr., Baltimore dist.
E. F. LeFevre, mgr. Troy dist.
C. H. Haviland, Jr., sales engr.
E. C. Ferguson, asst. to gen. sales mgr.
G. B. Tobey, adv. mgr.
F. I. Perkins, sales rep.
J. Fiola, sales rep.
H. Russell, engr.



KEMCO

STAINLESS STEEL SPECIALS . . .

Each materials handling device by KEMCO is designed to do certain work under certain conditions at lower cost. Call KEMCO for Pin trucks, Dye House Trucks, Conditioning Trucks, Platform Trucks, Dollys, Cans, Round Cornered Trucks and other materials handling specials.

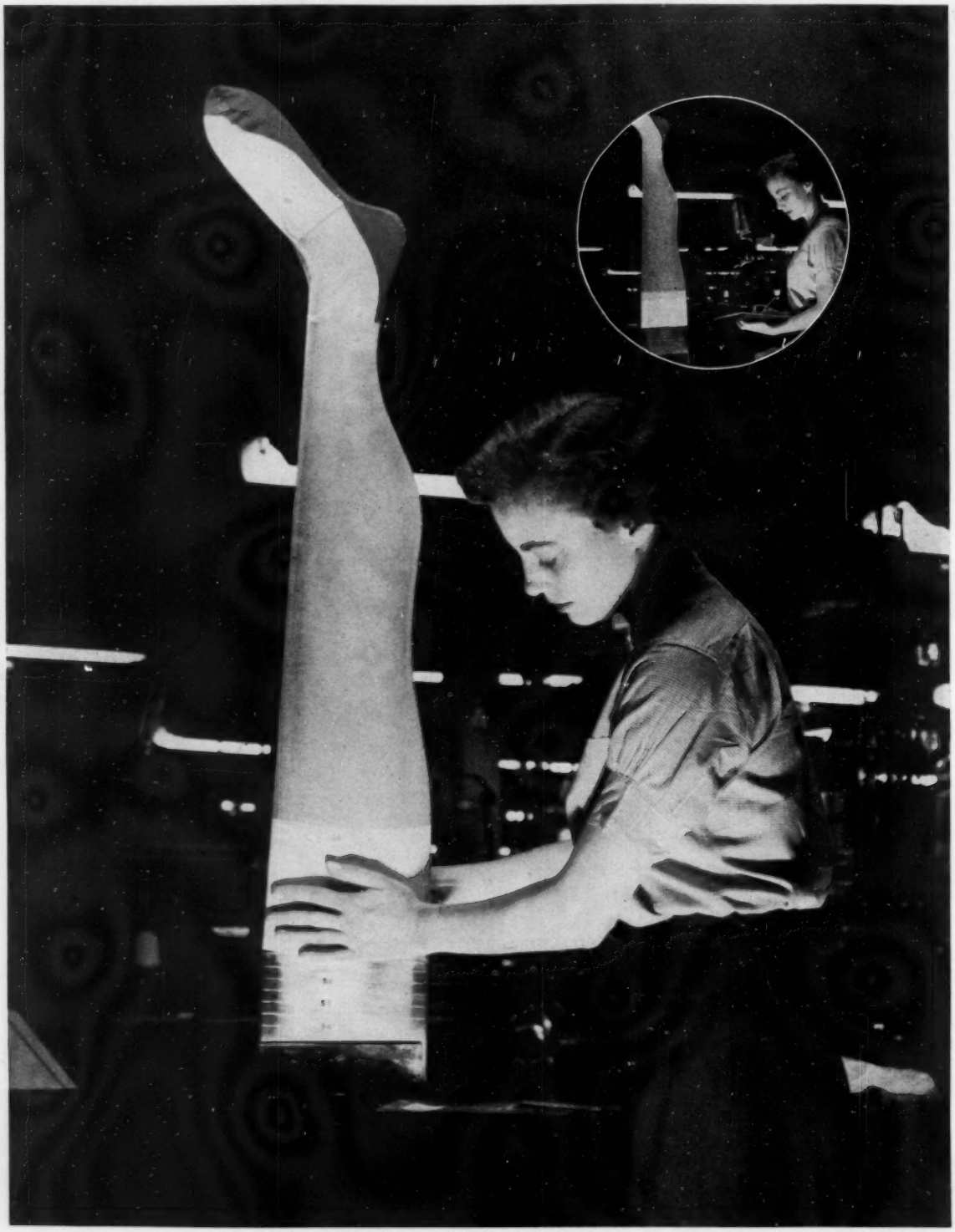
VISIT OUR BOOTH
AT THE KNITTING ARTS SHOW, ATLANTIC CITY

KENNETT EQUIPMENT & MACHINERY CO.
KENNETT SQUARE 10, PA.

KNITTER HINTS No. 41

EXCLUSIVE

"Cold" boarding for length is not only a necessity but is just about the cheapest form of length control. A board is marked off every half inch at the bottom, and the length of each numbered stocking is recorded (see circular photo inset).



3-IN-1 FINISH

Here's how "Immune" acts as a softener, odor masker, and bacteriostatic agent for hosiery and sweaters

Staff Prepared

EXCLUSIVE

A HOSIERY and sweater finish designed for man-made fibers but applicable to all fibers has been developed at the Universal Dye Works, Inc., Philadelphia, Pa., to provide softness, odor prevention, and protection against bacteria and fungus attack. The bacteriostatic efficiency, established by laboratory evaluation, is of particular value where skin soreness, rash, or dermatological disturbance is experienced.

Background. The finish, trade named "Immune," developed as an outgrowth of a search for a softener to counteract the stiffness imparted by snag-resisting resin finishes to dyed nylon hosiery. Some 20 different softeners were tried, resulting in selection of one which did the job uniformly and was substantively applied with durable properties.

Coincidental to this selection was the discovery that the finish was also an odor masker—i.e., it acted as an odor preventive much in the same way that a household soap currently being marketed does. Further development of this property (which is primarily one of bacteria inhibition) yielded a finish which discourages bacteria and fungus attack on the skin when an Immune-processed fabric is worn, thus supplying protection against the effects of secondary infections and other skin disturbances.

How Was Its Effectiveness Checked? The finish, because of the nature of the job it does, was carefully checked in an independent laboratory and cleared through the U. S. Department of Agriculture and the Food & Drug Administration.

To qualify the meaning of bacteriostatic properties in terms of use of garments so treated, it should be mentioned that this does not represent a medical cure, but can prevent spread of damaged areas resulting from harmful bacteria and fungi until medication is applied. As an example, in the case where an individual's feet perspire freely and the moist skin on the toe is broken through abrasion, a treated stocking worn next to the affected area will discourage development of secondary infection until medication is applied.

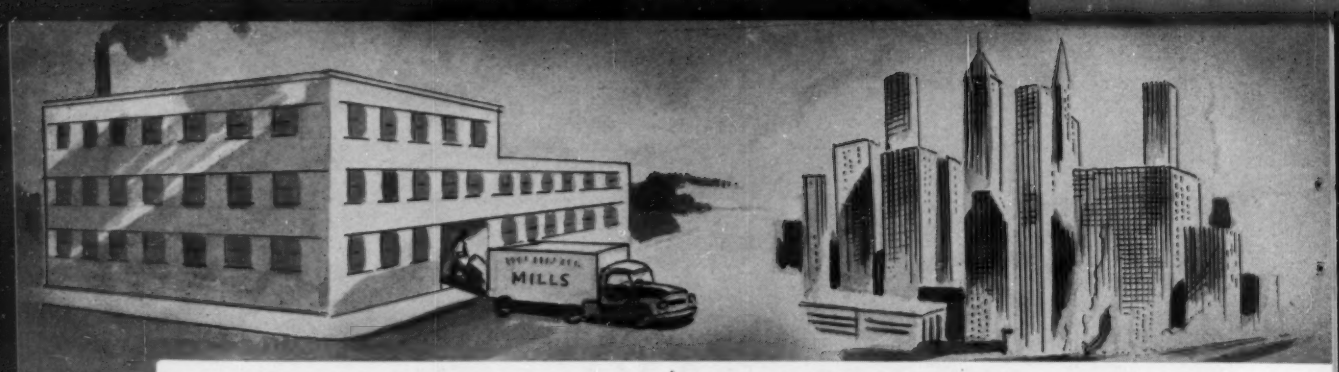
The Test. A "zone of inhibition" test series was conducted on samples of Immune-treated and untreated 15- and 30-denier hosiery. This test consisted of exposing 2½ x 2½ centimeter samples cut from the foot, heel, and top of the 15-denier stocking and 2½ x 2½ centimeter samples from the same parts of the 30-denier to intimate contact with a culture medium of the common pathogen, *Micrococcus pyrogens var. aureus,* and incubating, after which the zone of inhibition or clear, uncontaminated area around the test sample is observed. The width of this zone is an indication of the diffusibility and effectiveness of the bacteriostatic agent.

Untreated test squares washed with neutral soap and tested dry, with and without rinsing, showed no zone of inhibition.

Immune-treated test squares showed an average inhibition zone of 1 to 5 millimeters in the case of the 15-denier, and 3 to 6 millimeters for the 30-denier, prior to washing. Washing by hand in clear tap water and in a soap solution diminished these zones only gradually.

Since a 4- to 5-millimeter zone is considered a significant indication of bacteriostatic activity, these tests can be rated positive.

The Future. Because of the slight cost and effective nature of this three-way finish, management at the Universal Dye Works feels that its application should be included automatically by dyers on appropriate fabrics much in the same way as are moth-resistant finishes on carpet wools, suitings, and other fabrics.



MERCHANDISING

Form a sound basis for

The balance between material and labor costs must dictate the decision as to when to use full-fashioned machines and when to use circular machines for knitting sweaters. In general, where raw material costs are the major consideration the low waste factor of full-fashioned knitting makes its use desirable. Conversely, if labor is the chief cost item, circular knitting will probably be the most practical.

By Harold L. Neuman
Robert Bruce Knitwear Co.

NO. 5 OF A SERIES—EXCLUSIVE

THE MANUFACTURE of knit goods is in general based on certain characteristics not normally found in woven products. These are elasticity and casualness of appearance; and, because of the loft common to knitted yarns, warmth too is generally expected of a knitted fabric.

Beyond this broad functional distinction lies a requirement to form a many-sided philosophy before creating an organizaton designed to manufacture and sell knitted cloth. To be long-lived, this creation must be based on many things; the thing that should *not* be considered is the "gimmick" or purely promotional appeal of a product.

To cite an example, the men's full-fashioned sweater division of Robert Bruce Knitwear Co. was recently organized at a cost of about $150,000 for equipment and $25,000 for employee training. The decision to make this investment rested on more than the fact that specialty hair fiber sweaters happened to be selling at the moment. Instead several phases of the nature of the product were studied and evaluated first.

Machinery Development. The first attempt at adding or decreasing stitches in knitting to shape was made in hand frame knitting. This practice, known as fashioning, was pretty generally eliminated with the advent of the circular machine. Reasons for the change were primarily those concerning cost; it was easy and cheap to cut a back and front of a garment from a single tubular width and to shape and sew the edges with overlock stitches. This economy of labor outweighed the increased material costs that resulted from cut-away waste.

About 100 years ago the Cotton patent machine was developed in England to eliminate the high labor cost of hand knitting to shape and caused the growth of a large industry in Scotland and England. This growth pretty well paralleled full-fashioned hosiery knitting except that the position of full-fashioned hosiery today has been adversely influenced by a swing to seamless work (because of the ease with which the new fibers may be shaped by heat).

The art of full-fashioned sweater knitting has more recently been introduced in the United States, accompanied by local machinery manufacturing and conversion of multi-section hosiery machines to widths and gauges suitable for sweaters. The entire development in this country was not as difficult as it seemed.

Why Use Full-Fashioned Methods? Appearance-wise, full-fashioned sweaters allow for a flatter seam, contain a better looking stitch, and, in women's sweaters at least, possess a desirable characteristic style point, the so-called

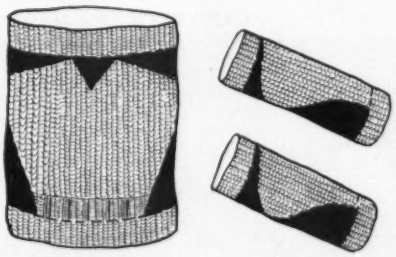
Knitting

product development

fashion marks. To date, these marks are not an important factor in mens sweaters.

Material waste in manufacturing a full-fashioned sweater is negligible; labor costs, while not as low as those for the circular work used as a basis for cut goods, are relatively low for the type of work being produced.

When to Use Full-Fashioned Machines? This decision depends on the balance of material and labor costs in comparison with circular knit (cut) work.



CUTTING WASTE is the main point to consider in choosing between full-fashioned and cut sweater work. This drawing shows the high waste (black areas) encountered in cutting circular knitted goods, as against no waste in full-fashioned work. If the material cost of the waste is high, full-fashioned knitting is best for the job.

Using a low-priced raw material such as cotton, the cost of full-fashioned work is much higher than is cut work. In this case labor makes up the bulk of the mill cost, and labor in circular knitting is cheaper than in full-fashioned knitting; material savings in the full-fashioned work do not come to a significant amount with this low cost material.

An exception to the decision against using low priced materials in full-fashioned work would be in cases where the appearance advantages of fashioning are reflected in consumer demand.

The Use Of Expensive Materials. The reverse of this condition, therefore, would provide the most fertile grounds for the use of the full-fashioned equipment: where an expensive material plus full-fashioned labor with no waste is cheaper than the same expensive material plus cheaper labor with a high waste cost.

This fact leads to the pretty general confinement to full-fashioned knitting of such specialty hair fibers as cashmere, lambs wool, zephyr, and a few others.

What About Foreign Competition? In moving any product to the consumer at least one of the two main determinants of success — appearance and price — can be deceptive in the face of an imported version of the same product. The appearance or style factor will almost always be thought of as better in the import than in the domestic version. This fallacy can perhaps be overcome by consumer education.

However, an evaluation of full-fashioned sweater manufacture shows that rare-fiber sweaters cannot be matched by competition from England, Scotland, or Italy because of our superior production methods. Trading, therefore, should be done on price.

Will It Last? Barring yet undeveloped innovations, the bases for product development and manufacture brought out in this article coupled with a trend in consumer demand for more casual, lightweight articles of apparel indicate a sound future for full-fashioned rare-fiber sweaters.

NEEDLE SERVICE RECORDS

show where costs go into the program to improve quality, in addition to increasing production

CARD RACK (above) accommodates separate supply of consecutively numbered cards for each individual machine. Consecutive numbers indicate cloth rolls. Drawing at top of opposite page shows information called for.

Staff Prepared

STANDARD practice in many knitting mills is to replace knitting needles on a time interval basis; for example, annually. However, P. H. Hanes Knitting Co., Winston-Salem, N. C., found that this practice was neither logical nor economical on body knitting machines.

In many instances two machines standing side by side had not been run the same length of time because they were on different styles. It was possible for one of these machines to stand idle half the time, thereby producing only half as many pounds of goods as the adjacent machine. In view of the difference in production it was a costly practice to replace the needles in both machines at the same time when one machine actually did not require new needles.

Different Approach. A maintenance program including a perpetual record of needle service was established. Also, each machine was assigned a maintenance card which indicated every maintenance operation performed on the machine and the date the work was done. These cards show dates of needle changes, cleaning, overhaul, and other pertinent details; however, this was not enough.

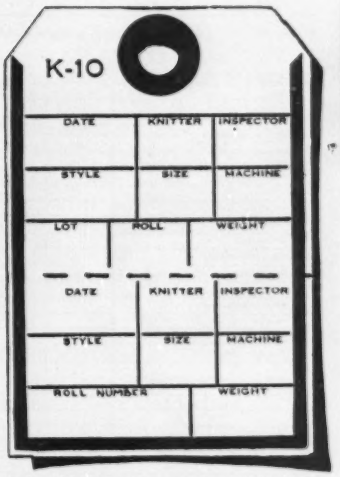
Production Records. A record of production from each knitting machine was necessary to determine the needle service on each machine. A card rack was provided to accommodate a separate supply of cards for each individual machine to show machine production, date, knitter, inspector, style, size, lot number, roll number, and weight (see accompanying illustrations).

Each time a cut is made, a fresh card with the correct roll number already affixed is placed on the knitting machine. The production cards are numbered consecutively to show the actual number of the roll of cloth since the last needle change.

When a machine starts giving trouble, making bad work, or otherwise operating unsatisfactorily, the production figure on the card is observed to see how many rolls of cloth were made since last clean-up and needle change. This system has stopped wasted needles.

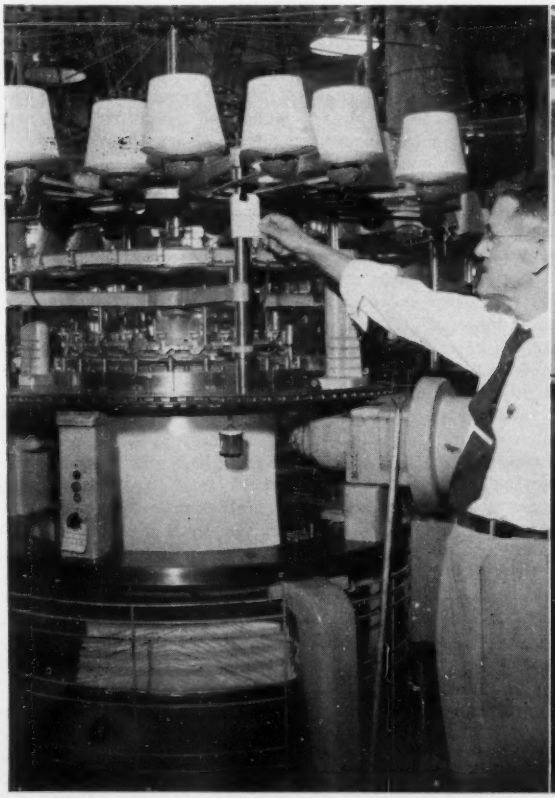
When bad cloth is made, the knitter often claims that an overhaul, clean-up, or new needles are needed. At a glance the cards show the actual number of rolls produced since last needle change, and a quick look at the maintenance record serves as a double check in some instances to indicate the last overhaul.

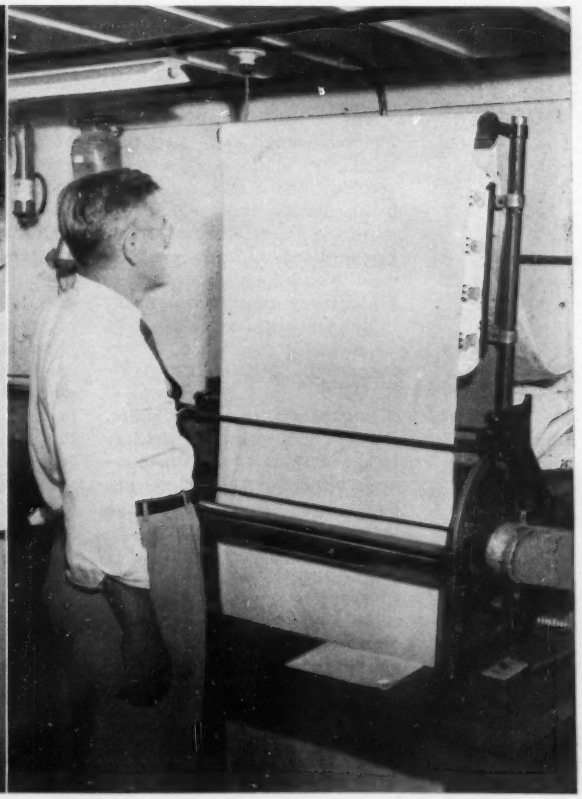
Inspection Removes Doubt. If a bad roll of cloth is noted in the



THE KEY to Hanes' needle service record system is this card which accompanies each roll of cloth produced. Portion below dotted line (perforation) is removed before cloth goes to cutter.

FRESH CARD with the correct roll number already affixed is placed on knitting machine each time a cut is made (left). Cards are consecutively numbered in lower left corner. Right: Bad cloth in cutting room identifies knitting machine. Knitting foreman removes roll for quick check on special inspection machine in knitting room.





KNITTING MACHINE REPAIR RECORD MACHINE NO. _____

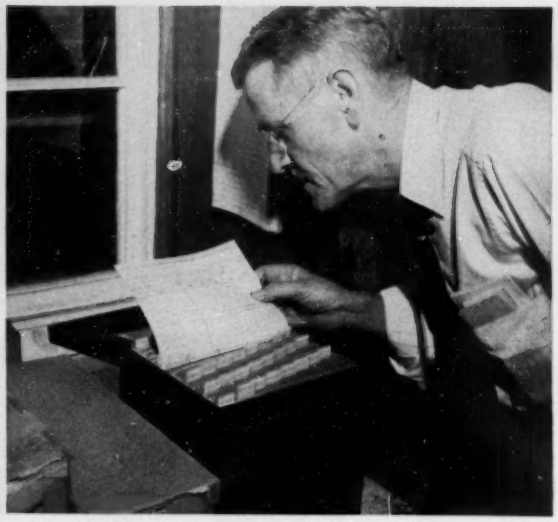
P. H. HANES KNITTING CO. PURCHASE DATE _____

SIZE	CUT	FEEDS	R. P. M.	SERIAL NO.	INVENTORY NO.	LOCATION	MAKE

OVERHAULED — DATE AND FIXER

PARTS	1954	1955	1956	1957	1958
BELT					
BRAKE					
CLUTCH					
CYLINDER					
DIAL					
STOP MOTION					
CYLINDER NEEDLES					
DIAL NEEDLES					
YARN CARRIERS					
NEEDLE PROTECTORS					
TAKE UP					
CYLINDER CAMS					
DIAL CAMS					

REMARKS



MAINTENANCE CARD serves as double check for complete information on every maintenance operation performed on the machine and date work was done.

cutting room, the knitting room foreman is notified of the machine number. He goes to the appropriate knitting machine, removes the roll of cloth, and places it on an improvised but efficient and effective inspection machine in the knitting room, where it is checked.

If the roll of cloth is good, the cutter has complained too quickly or the trouble has already been corrected.

If the cloth roll is bad, the knitter is shown his bad work and is expected to take appropriate cor-

Tips for Processing Arnel

The warping, slashing, quilling, and weaving of Arnel filament and spun yarns can be accomplished on commonly used textile mill equipment with commercially available preparations and by normally used techniques, according to preliminary information recently published and available from Celanese Corporation of America, Textile Division, Charlotte, N. C.

In general, the bulletin states, the new yarn performs similarly to acetate and the procedures and formula changes recommended are those made only to take advantage of Arnel's intrinsic fiber properties.

Following are some of the suggestions given by Celanese in this first bulletin which is based on research and experience in the field:

(1) Gelatin is not satisfactory for sizing Arnel filament yarns.

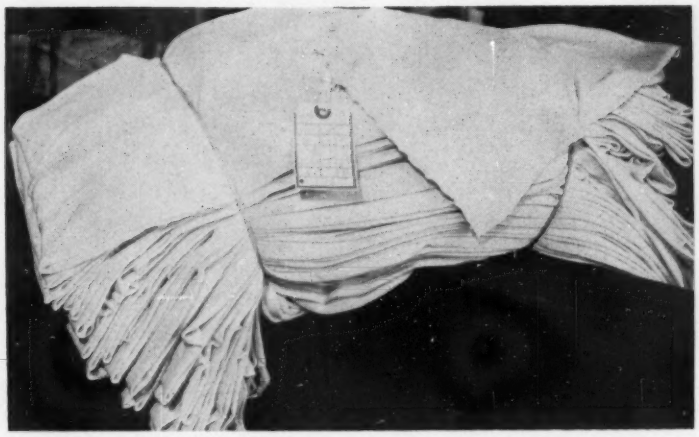
(2) Where rubber rolls are utilized at the size box, it may be necessary to cover them with felt, depending on the hardness of the rubber. The softness provided by the felting markedly reduces the contact pressure and makes for a higher application of size which is mostly on the surface of the yarn bundle. Higher pressures and harder rolls squeeze more size into this bundle of fibers or filaments. There is no set rule as to how much pressure or what degree of softness should be used in any particular mill; these must be determined by experience.

(3) Wet splitting is recommended for sizing spun Arnel yarns.

(4) Operating conditions found satisfactory for slashing *filament* Arnel yarns are: Speed, 25-30 ypm; size pan temperature, 130-140 F; quetsch pressure, 700-1000 lb (no covering); can temperature (recorder temperatures inside of can) 150, 170, 175, 195, 200, 175, room temperature F for seven-can slasher. Size formula and stretch maintained at the slasher for sizing filament warps for taffeta, French crepe, sharkskins and combination fabric (slub type) are given.

(5) These conditions are considered as typical for slashing *spun* Arnel yarns: Speed, 25 ypm; size pan temperature, 180-200 F; quetsch pressure, 650-1000 lb; can temperature for 7-can slasher: 190, 200, 210, 210, 210, 190 F (recorder temperatures inside of can). Size formula for a shirting fabric made of spun Arnel is given.

(6) When weaving and designing fabrics, Arnel's intrinsic properties, particularly with respect to its shrinkage and stretching, must be taken into consideration. In general, total shrinkage (which includes reed to off-loom, dyeing and scouring, and heat treatment) will be considerably less than that generally obtained from acetate, 50/50 acetate and rayon, and 100% rayon fabrics. This indicates that if an attempt is made to translate the commercial construction used for acetate and rayon directly to Ar-



IDENTIFICATION FOLLOWS CLOTH through mill but lower portion of ticket containing roll number is detached before cloth reaches cutter.

rective measures, unless the number of rolls produced since the last needle change and clean-up shows new needles are needed or the machine needs cleaning.

Valuable Records. The perpetual record system has enabled the mill to determine the life of different needles, so that supervisors can anticipate when a change is needed; and also helps to control costs more accurately in producing first quality goods.

The primary objective of the program is to show where costs go into the program to improve quality, and not merely production.

Economies Effected. In some instances a machine may be overhauled and a portion of the needles may be thrown out. In such instances these needles are replaced with used needles which may give several thousand pounds of additional service before requiring a change.

Precautions. The lower portion of the ticket containing the roll number is detached before the roll of cloth reaches the cutter. This is done because it was found that the number of rolls appearing on the card was bad psychology for many employees, who concluded that a specific machine needed needles before there was actually a need for the change.

Since Hanes initiated the procedure of detaching the portion of the ticket containing the roll number, no further complaints about needle changes have been registered.

nel, fabrics which are open, starved, and somewhat limp may result. See the bulletin for specific information.

(7) In quilling Arnel filament yarns, lower tensions than those used on acetate are necessary to produce optimum density quills; spun yarns handle similarly to acetate.

"Innovate and Grow!"

Textile producers and distributors of textiles and their products must step up their pace in creating new public desires for the goods they sell if the industry is to compete successfully, taking dollars from other industries, and gaining its share of gross national income, A. W. Hughes, president, J. C. Penney Company, Inc., stated recently.

Mr. Hughes was the speaker of the evening before the annual dinner of The Association of Cotton Textile Merchants of New York, held at the Hotel Plaza.

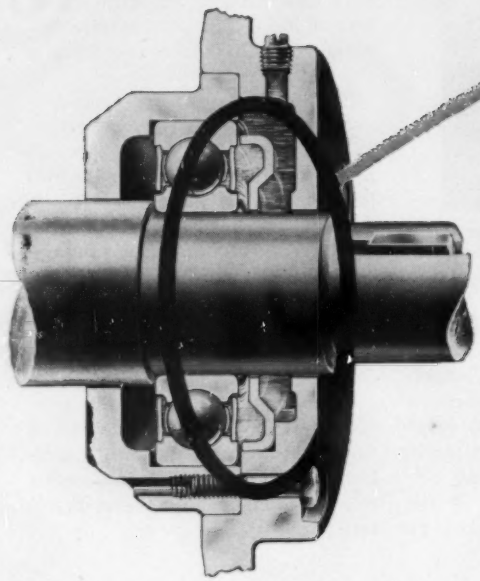
Pointing out that if purchases of fabrics and clothing were made only against actual need, mill operations would go back to pre-Civil War scales, Mr. Hughes emphasized that "all other industries are making remarkable strides in creating new wants and attracting our customers' dollars by glorifying the means to satisfy these wants." He cited tremendous changes in the American home; new packaging, preparations and luxury items in foods, and an automobile industry built on new annual models creating new wants yearly, and ready to supply such wants. Textile manufacturing and clothing, industries which could not live on one model a year but must have something new every season and almost every day, must provide things "as dramatic as the new cars," Mr. Hughes said.

He proposed surveys to detect desires and trends from the consumer level before dealers or distributors realized such changes in public wants. He emphasized the home sewing market as a growing field of the highest potentialities, but declared that makers of accessories and notions and patterns had been doing more to advance this than the textile industry itself. And he proposed a nation-wide program of textile merchants, converters, and mass distributors "to sell the women of America" on new styles, fabrics, patterns or color "in a simultaneous program."

"We, as manufacturers and distributors of textiles," the speaker said, "can share — to exactly the extent that we deserve — in the limitless possibilities that are ours in this dynamic America. We can do this if we display real leadership in our emphasis on innovation — if we sense or create new desires — if we go after our rightful share of the consumer's dollar. To do this, our guide and our program must be: 'Innovate and Grow!' Then business will indeed be good for you and for us."

RELIANCE METERMATIC

You can't grease 'em wrong!



NEW METERING PLATE

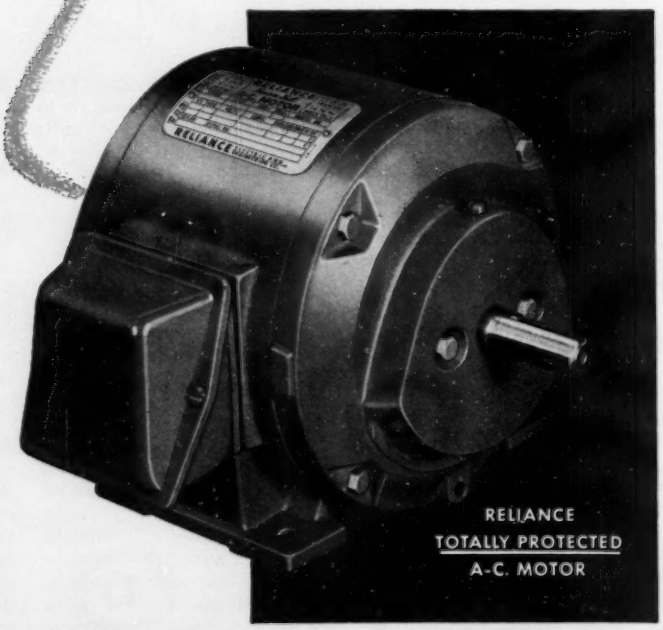
provides the right amount of lubrication for A-c. and D-c. motors

No over or under lubrication is possible . . . you *can't* grease 'em wrong!

This is your sure answer to reliable greasing to eliminate burned-out motors.

Grease is *metered* to the bearing in just the *right amount* at all times.

Get in touch with the Reliance sales office or distributor near you for more details. A-1492



RELIANCE Super LINE

RELIANCE ELECTRIC AND ENGINEERING CO.

1085 IVANHOE ROAD • CLEVELAND 10, OHIO

Canadian Division: Welland, Ontario

Builders of the Tools of Automation

RELIANCE *Precision-Built* MOTORS

Tips on Card Cylinder Bearings

Many mills have experimented with, and are still experimenting with, various types of reworked cylinder bearings, ball bearing cylinder bearings, and "bargain" cylinder bearings. We, as a service organization to operators of carding machines, very strongly recommend that all card cylinder replacement bearings be exactly like the bearings with which your cards were originally equipped. Such identical bearings can be obtained from the card builders or from nationally known bronze bearing manufacturers.

Within the last twelve years, much has been said about metal inserts for worn-out bronze cylinder bearings. These are a poor substitute; and due to the nature of the metal, poor assembly, and inferior machine work, we know of no mill that has not experienced difficulty with such reworked bearings. In fact, where large installations have been made, it has cost thousands of dollars in card clothing replacements and other thousands of dollars in "re-drawing raised or blistered cylinder fiillets." The following is a summary of mill experiences with cards equipped with cylinder bearings containing metal inserts:

1. Difficulty in centering cylinder between frame sides.
2. Extreme difficulty in keeping card lined.
3. Only pin-point contact between shaft and reworked bearing; installation of insert under pressure causes distortion.
4. Distortion of outside diameter of old bronze bearing, resulting in poor fit between mainstand and reworked bearing.
5. Hot bearings. Such reworked bearings invariably run hot, which no amount of lubrication can control. Hot bearings cause expansion of the cylinder, resulting in faced flats and faced cylinder fillets. Such contact eventually causes raised or blistered cylinder fillets, which have to be redrawn or replaced.

These tips may prevent damage to your cards:

1. All replacement bronze bearings should have a single or double figure eight (8) oil groove. These grooves are oil reservoirs and assure lubrication and prevent undue wear between bearing and shaft.
2. Avoid "bargain" bearings. Buy only from an established bearing manufacturer direct, or through concerns vitally interested in carding.
3. Some mills have applied ball bearing equipment to present card cylinders with no thought of the wear on cylinder shafts. Any forward-looking ball bearing manufacturer will insist on an especially ground cylinder shaft, held to very close tolerances, plus personal supervision of initial installation of ball bearing cylinder bearings. Most ball bearing cylinder bearing applications to date have failed prematurely because of poor fit between adapter and cylinder shaft. Any mill contemplating the installation of ball bearing equipment should have the job engineered by a ball bearing manufacturer working in conjunction with a card builder.

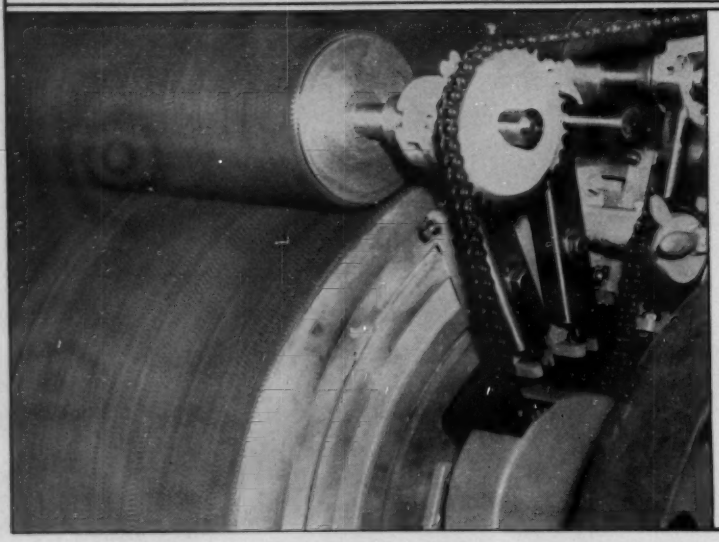
NOTE: All rights reserved. Free reprints on request to Ashworth Bros., Inc., Fall River, Mass.

please turn the page ➧

HAVE YOUR METALLIC ROLLS RECOVERED

By *Ashworth*

(Check with our nearest Plant before Shipping)



...AND OBTAIN

1. **Better quality carding**
2. **Increased production**
3. **Longer card clothing life**
4. **Thus lower costs**

This procedure is desirable when sending metallic rolls to us for recovering:—

1. State on purchase order the following information:
   a. Type and size of roll.
   b. Number of points per linear inch and number of threads per inch desired.
   c. Hardened point (not just blued — but really hard) or regular wire.
2. If metallic roll is sent in without wire, mark direction in which wire should point.
3. When crating, the roll should be completely boxed (including shafts) and supported at each end as close to the heads as possible. Box should be made large enough to clear points of wire after roll is recovered.

WHAT YOU GET FOR YOUR MONEY

1. Shafts straightened and heads checked.
2. Shafts metal sprayed, if necessary.
3. Thickness of shell checked.
4. The best wire, both manufactured and installed, by Ashworth, to the closest tolerances.
5. Fast and reliable service.

PRODUCED BY AMERICAN WORKERS

ASHWORTH BROS., INC.

American Card Clothing Co. (Woolen Division)

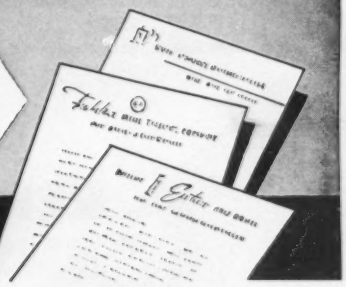
Fall River*†‡ Worcester‡ Philadelphia*†‡ Charlotte†‡
Greenville*†‡ Atlanta †‡ Dallas†‡ (Textile Supply Co.)
Los Angeles 62, Calif. (E. G. Paules, Representative)

*Factory †Repair Shop ‡Distributing Point

3 FACTORIES • 6 REPAIR SHOPS • 7 DISTRIBUTING POINTS

HOW OTHER MEN MANAGE

• Letters to Editor • Technical Discussion •
• Manufacturing Briefs • Kinks & Short Cuts • Comments from Readers •



Running Dacron? Watch These Processing Points

EDITOR TEXTILE INDUSTRIES:

Dacron in filament form, like any new raw material entering into the weaving mill, brings with it a requirement for a special set of techniques. It can be said that special attention to details in preliminary operations generally performed outside of the mill contributes the most towards the successful weaving of Dacron.

Let us examine some of the points to watch for:

Throwing. Two characteristics of Dacron can make throwing a source of weaving headaches: the zero-twist producers put-up, and the static electricity problem. If the throwster is not thoroughly acquainted with the proper processing techniques, puff balls will result, causing numerous loom defects, particularly dirt.

A warp twist of 10 turns is generally recommended, but it is felt that a few more turns (3) add a safety factor which provides insurance against any unknowns that arise in new cloth constructions, or variations in existing ones. Another safety factor that has paid off in better production is the inclusion of *both* sizing and antistatic oiling of the thrown yarn.

Many mills are using zero-twist yarns, oiled only for filling purposes. The mill man must decide if cost savings so gained are also carried through in production and quality performance. It is felt that, for filling yarns, three to five turns is still the best bet for either grey or dyed yarn.

Where yarn dyeing is to be performed, preshrinking is essential. Here again, cost savings must be carefully analyzed. Bobbin vs. skein shrinkage will present itself as a real challenge. Based on varied experience, the skein meth-

PHOTO CONTEST!

$25 will be awarded the winner

Enter your favorite photo now! Contest closes May 25, 1955

TEXTILE INDUSTRIES announces a new contest for camera fans. $25 will be paid for the best picture of textile interest sent in during the period of the contest. Pictures may illustrate production tips, safety precautions, or other points in mill operations, or may be humorous. All that is required is that they have a textile background. All pictures accepted will be paid for immediately, and the best picture will receive the $25 award at the end of the contest. Pictures will be judged both on interest to textile men and on photographic quality.

The contest rules:

► All contributions must be postmarked not later than May 25, 1955.

► Stories requiring more than one picture to tell (such as "before and after" illustrations) count as one photo.

► Negatives of photos entered in the contest must be sent with the photos, since illustrations in the magazine are best made from enlargements. Negatives will be returned.

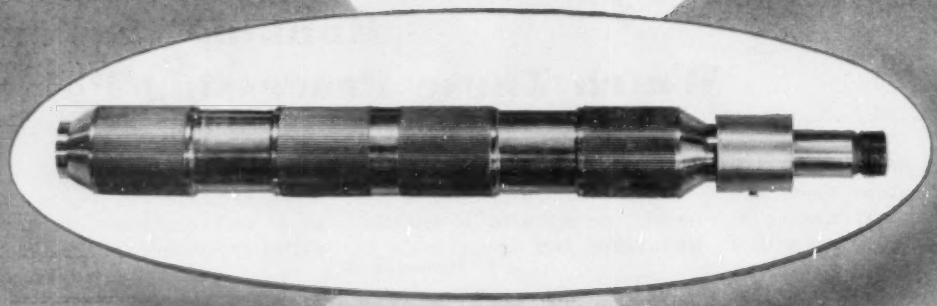
► A picture caption of not more than 50 words should be included.

► No limit to the number of entries an individual may submit in any one contest.

► Entries must not have been published previously and must not be submitted to any other publication.

Send your contest entry to: Photo Editor, TEXTILE INDUSTRIES, 806 Peachtree St., N.E., Atlanta 5, Georgia.

THIS IS A SACO-LOWELL GENUINE REPLACEMENT PART



IT IS A *GUARANTEED* REPLACEMENT, PROPERLY DESIGNED, ACCURATELY MACHINED AND BACKED BY SACO-LOWELL "KNOW HOW," RESEARCH AND ENGINEERING.

EACH SACO-LOWELL REPLACEMENT PART IS SPECIFICALLY DESIGNED AND "CUSTOM MADE" TO FIT THE EXACT MODEL OF THE EQUIPMENT IN YOUR MILL.

The expansion of Saco-Lowell's Replacement Parts facilities is an investment we have undertaken in order to offer greater service. This can only result in higher efficiency and larger profits for our customers. A mill inventory of Saco-Lowell Parts assures immediate repairs, thereby eliminating costly lost production.

One of Saco-Lowell's specialized parts sales engineers will call at your mill soon to explain the new Saco-Lowell Replacement Parts Program and to aid in servicing you in this vital phase of your operation.

IT *PAYS* TO USE GENUINE SACO-LOWELL REPLACEMENT PARTS - *THEY'RE GUARANTEED*

SACO-LOWELL

60 BATTERYMARCH STREET, BOSTON 10, MASS.

Shops at BIDDEFORD and SACO, MAINE, and SANFORD, N. C.

SALES OFFICES: CHARLOTTE • GREENSBORO • GREENVILLE • ATLANTA

od, which presents the most completely (20%) uniform result, is a must. Where plied yarns are involved it is very important to preshrink in the single rather than the ply to avoid cockling.

In the case of preparation of Dacron for dyeing, the throwster should put only enough anti-static oil on the yarn to assist in his operation. Anti-static treatment in preparation for weaving can easily be done in the dyebath.

Yarn Dyeing. The existence of only a limited number of dyes capable of yarn dyeing Dacron dictates caution at this stage of the operation. Full ranges of colors package dyed uniformly to shade are possible, provided the yarn has been properly and thoroughly preshrunk. Some throwsters are capable of executing the dye-tube put-up operation properly; others must pass the job along to the dyer. In either case, the manager of the weaving mill must supervise this most important step by coordination between his dyer and throwster to make sure that instructions and requirements are properly filled.

Warping and Quilling. These departments will present no great problem with Dacron if yarns have been properly prepared. In cases where piece dyed goods are being made, it is still most important to observe cleanliness. This is particularly so since static electricity will cause Dacron to attract dirt and hold it tenaciously. To overcome this on certain classes of goods, mills have even resorted to wrapping each quill in tissue paper as it is made.

Weaving. Here again, if puff balls have been held to a minimum and if other phases have been properly carried out, weaving will be no problem. In fact, the weaver will prize Dacron as one of his top production performers.

Loom cleaning should be stressed, with special attention directed to the reed. It is often necessary to change to a more open reed from that specified if puff balls, which are great dirt collectors, are in evidence.

Piece Dyeing. Much work must still be done in the development of proper dyeing methods to obtain full-range, uniform shades. The weaver must be particularly careful to make sure that his dyer *does not* heat-set the piece goods before dyeing in cases where goods are dirty. Failure to take this precaution can result in a literal "dyeing in" of the dirt, which can never be removed.

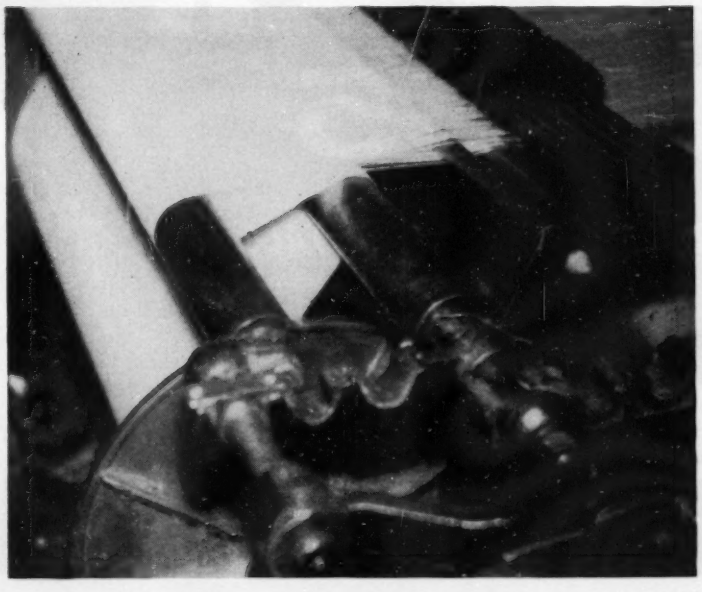
Inspection. The mill man might profit to remember that Dacron is washable. Small amounts of dirt in loom finished articles can readily be removed with standard mill cleaning agents or better still, soap and water. If there is evidence of too much dirt, goods can be dry cleaned or washed without spoiling the loom finished appearance and hand.

[Further tips applicable to the processing of Dacron appeared in TI for January, 1955, pp. 108-13.]

CONTRIBUTOR No. 8702

HOW OTHER MEN MANAGE

How to Improvise a Drag Roll for XD Looms



We are running a heavy, spun Fiberglas fabric, crow foot weave, 48 x 29, 44/2 spun glass warp and filling. This fabric runs about 167 lb per 100 yards, and needs a lot of drag and weight on the back of the loom. We therefore improvised a drag roll from a spare whip roll.

On the XD looms which we are using, the bar to which the let-off arm is attached next to the whip roll is 1¼" in diameter. The spare whip roll runs on a 1½" bar, so we removed the whip roll from this bar and bushed it up to fit the let-off arm bar. We used a brass bushing (see accompanying illustration) extending about 2" from each end of the roll, and about 3/16" in thickness. The roll then slipped over the bar, as shown.

It was then necessary to anchor

for pure finish...

VICTOR P-40-U

BRIGHTER SHADES AND WHITES...
SMOOTHER HAND

KEESTAR PRODUCTS

improved finishing starches

for backfill...

VICTOR 10-55

ALWAYS UNIFORM... CARRIES MORE TALC...
MORE MELLOW HAND

Charles C. Switzer, Vice President
TEXTILE SALES DIVISION
1200 S. C. NATIONAL BANK BLDG.
GREENVILLE, SOUTH CAROLINA

THE KEEVER STARCH CO. ★ GENERAL OFFICES ★ COLUMBUS 15, OHIO
Processors of corn, wheat and blended starches for industry since 1898

down the original whip roll. We did this by taking two pieces of steel stock 3″ long by 1″ wide and ¼″ thick, drilling and tapping a series of 3/16″ holes in the whip roll brackets, and screwing the plate over them. The whip roll can therefore be moved in and out, as desired.

If a spare whip roll is not available, a piece of pipe or steel tubing will do equally well.

CONTRIBUTOR No. 8734

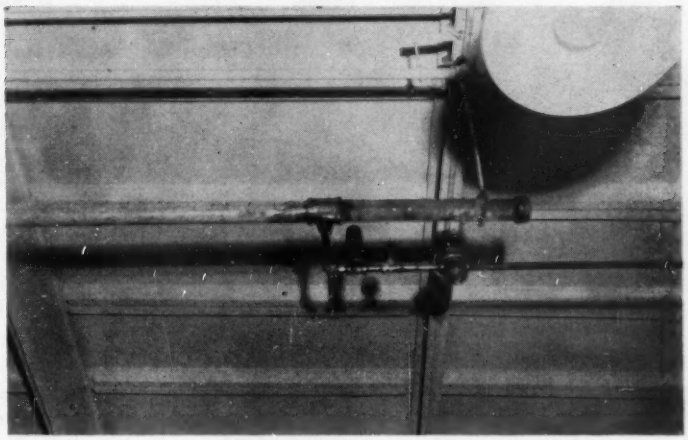
To Eliminate Air Storage Tanks-- Use Large Supply Pipes

THERE are many requirements for reduced pressure air supply in textile plants. This is especially true of hosiery mills, where several types of inspection forms are operated on reduced air pressure from 30 to 44 pounds.

It is the usual practice to install an air compressor in some convenient location and operate it at air pressures from 120 to 175 psi. The air from the compressor storage is then piped to a reducing valve, which reduces the pressure to 30 to 45 lbs. The air is then piped to the several points of distribution, but as the reducing valve has a limited capacity, it is necessary to provide a reduced pressure air storage tank to insure an adequate supply of air at all times to the machines in operation.

Most installations of this type use a 30-gallon range boiler, which is of the heavy-duty class used in home kitchens. Some of the disadvantages of using a reduced air pressure storage tank are that the tank requires floor space usually needed for other purposes; also, the tank cannot be installed at a point equally distant from the machines if they number more than two, consequently some machines have a more adequate supply of reduced air than others.

Instead of using a reduced air storage tank, we have found it much more practical to increase the size of the reduced pressure air line for its entire length, thereby providing ample storage for the air in the piping. The accompanying illustration shows a ¾-inch high pressure air line feeding through a ½-inch reducing valve into a 2-inch galvanized pipe, which has several outlets at convenient points for air distribution to the machines. The piping installation is suspended from the ceiling, and a pressure gauge and a pressure relief valve have been installed as safety precautions. These are shown in the photo.



Some of the advantages of using large supply lines instead of a reduced air pressure storage tank are as follows: The piping can usually be suspended from the ceiling; the system will prove economical as it is still necessary to run a line of piping of smaller size when using a storage tank, plus the tank cost; valuable floor space is saved by eliminating the tank; and by using a larger size reduced air pressure pipe, each machine receives an adequate supply of air.

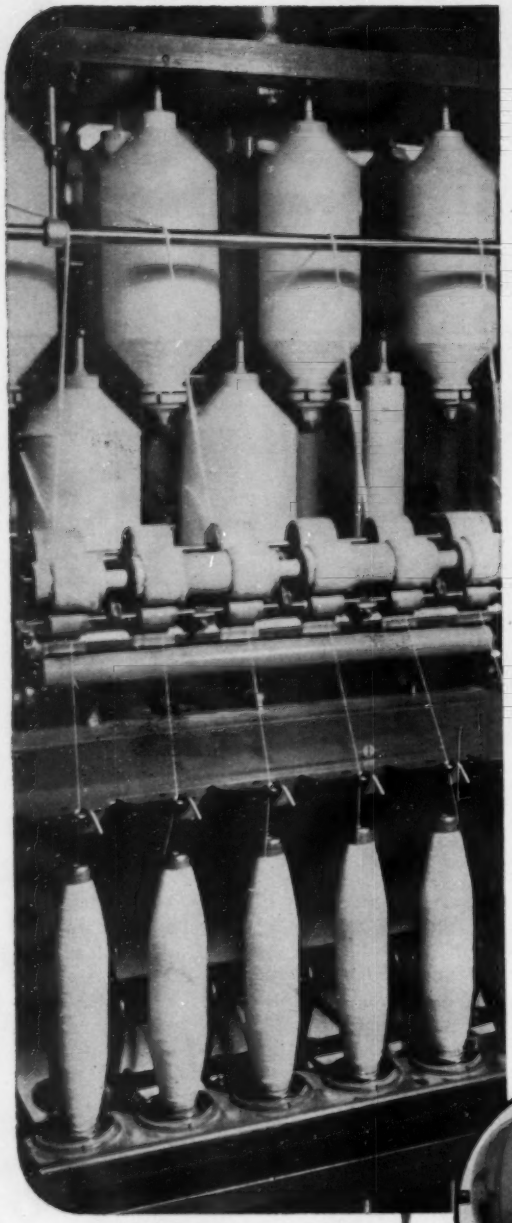
In computing the capacities of pipes, it will be found that each 5 foot length of 2″ pipe will hold approximately 1 gallon; a 26-inch length of 3″ pipe will have an equal capacity. The air should always be tapped from the top of the piping to insure clean air, and connections should be made to the low end of the supply line for draining condensation approximately once each week.

Problems in Piecing Up a Lap

EDITOR TEXTILE INDUSTRIES:

As you know, in piecing up a lap on a card it has always been necessary to throw away most, or all, of the last yard of lap which was wrapped up around the lap pin; and if this hard end got into the card, it not only made bad sliver, but might actually damage the card.

This hard end was due to two causes. One of these was the stoppage of the vertical calender rolls while the fluted rolls continued to



Only WHITIN SUPERFLEX Spinning Frames provide...

- Wide Range of Traverse
- Super-Draft System
- Top Quality Product
- Low Operating Cost

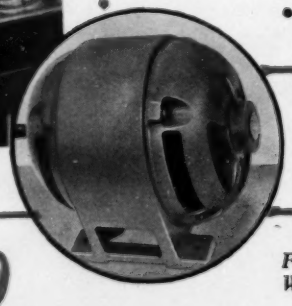
TRAVERSE To provide mills with complete flexibility for present or future conditions, the Whitin Superflex Spinning frame has a traverse range of 8" - 11". The frame can be easily set at intermediate positions in the mill. This feature allows mills to take maximum advantage of its spinning frames to produce the most economical sized package.

SUPER-DRAFT® The two apron drafting system, developed, perfected and used by Whitin for twenty-two years, is recognized as outstanding for fiber control and drafting performance. Highly flexible in range of drafts, it is easy to clean and to operate. Reports from mill after mill show that yarn quality is excellent — higher than ever before.

LOW OPERATING COST Whitin-Climax Ball Bearing Top Rolls and Whitin-Cleandraft non-lubricated middle and back top rolls banish oil from drafting zone, reduce picking and cleaning by 96 per cent, lower direct spinning expense and assure minimum operating cost.

OTHER FEATURES

- Easily accessible creel
- Spring counterbalanced ring rail
- Unsurpassed quality case-hardened bottom rolls
- Precision manufacture



LOW POWER CONSUMPTION

The standard textile motors used keep installation, power consumption and maintenance costs at a minimum.

®TRADE-MARK REG.

For detailed information write to Dept. D Whitin Machine Works, Whitinsville, Mass.

Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.

run, so that the lap was broken off behind the press roll. When the picker was started up again, this broken end of the lap had to be pushed into the bite between the fluted roll and the press roll and threaded up, and quite frequently the threading was not done quickly enough to prevent a considerable thickening of the end of the lap as the vertical rolls fed it out while the other rolls wouldn't take it.

Then, in threading up the lap pin the picker tender was usually quite indifferent to doing this properly, and a very heavy lap end would result; not only heavy naturally, but matted down into creases where the picker tender had not threaded the pin right.

Another problem was to thread the lap up properly on the pin, and you have doubtless seen homemade arrangements for oiling this pin. Such an arrangement generally consisted of a piece of pipe split in two with some slasher blanket glued to the inside of the pipe, and oil applied periodically with a spring-bottom squirt can. This naturally put entirely too much oil on the pin for a few doffs after fresh oil was applied to the oiling device, and in a short time there was not enough oil left to do any good and the laps were threaded up as before the oiling device was used.

We have devised an oiling arrangement operating with a wick so that we can put a quart or so of oil in a reservoir, and it will be applied with perfect uniformity to the lap pin. A suitable lifting lever has been provided for dropping this pin on the lap at the proper instant to thread it up correctly.

CONTRIBUTOR No. 8772

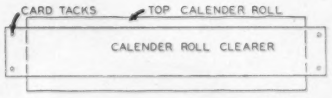
How to Re-Cover Card Clearer for Longer Wear Life

EDITOR TEXTILE INDUSTRIES:

Here is a simple way to re-cover the top calender roll clearer of a card.

First, drill four ¼-inch holes in the clearer, as shown in the accompanying sketch. Then plug the holes with card pegs.

Next, spread glue on the clearer and attach proper size piece of clearer cloth, and drive card tacks through the cloth into the pegs.



The clearer cloth can not come off, and will have increased wear life. The tacks are in the outer edge of the clearer and will not damage the calender roll.

CONTRIBUTOR No. 8758

HOW OTHER MEN MANAGE

Easy Way to Secure Loom Lay End Plate

EDITOR TEXTILE INDUSTRIES:

On Model E and D looms where lay end plates are put on with wood screws, the screws sometimes come loose or break off in the lay. Oftentimes the screws are loose enough to let the plate rise a little, a condition the weaver or fixer usually does not notice until a shuttle is badly chipped on bottom.

I eliminated this trouble by boring a ¼" hole through the lay and cutting a square slot in bottom of lay.

A nut was placed on bottom of the ¼" bolt. After tightening the nut, the bolt end was burred slightly to prevent the nut from coming off, should it work loose again. Also, the bolt cannot creep up if it is burred on the bottom. I made this change on the two front screws in the lay end plate. The back bolt close to the protector rod is done the same way because the nut cannot be turned on the bolt; the bolt must be turned on the nut.

CONTRIBUTOR No. 8609

These Simple Knitting Hints Saved Money

EDITOR TEXTILE INDUSTRIES:

One New York knitting mill was able to save a considerable amount of money by simply attaching a box for damaged needles to the fences of each machine. On rib machines, separate boxes for dial and cylinder needles are used.

Mechanics periodically collect these boxes and straighten out the damaged needles for re-use. Formerly, operators discarded the bent needles rather than taking the trouble to set them aside. Needle replacement has been cut as much as 20% by the new collection system.

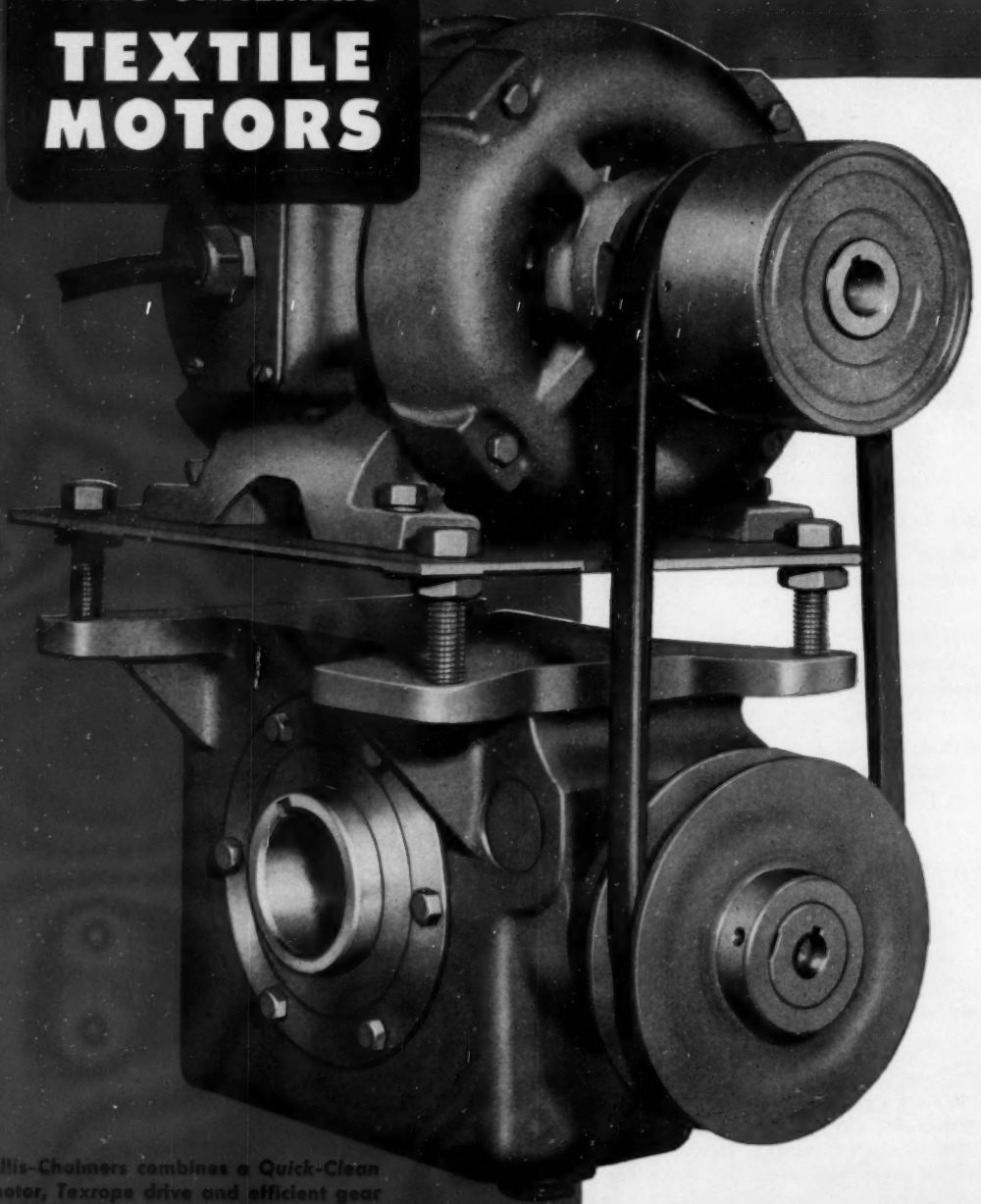
Another opportunity to save some money came with the introduction of waterless wash stations. In the past, knitters would contaminate white goods with hands soiled during oiling of equipment or changing needles. Wash basins were located too far from the operator's stand of machines, and the only way they could attempt to keep clean was to wipe off grease and oil on a piece of cloth. This practice left much to be desired.

Now each knitting station is furnished with an S. B. Chemical Compound Dispenser, which does

MAKE YOUR CARD ...Cleaner

ALLIS-CHALMERS

TEXTILE MOTORS



Allis-Chalmers combines a *Quick-Clean* motor, *Texrope* drive and efficient gear reducer to make a compact, reasonably priced power-package for cards.

ALLIS-

ROOM more Efficient and Safer

INDIVIDUAL machine control permits greater flexibility and more efficient machine usage. There is no large, unguarded belt to throw dirt and grease into the material or catch hands or clothing.

There's no need to move cards to install this drive. Unit requires practically same floor space as tight-and-loose pulley drive. It is mounted directly on the card shaft — independent of the card arch — with torque arm to keep gear box from rotating. There's no strain on card arch to cause vibration or distortion of air gap between flats and main cylinder. Constant speed results in higher quality.

Cuts Maintenance, Too!

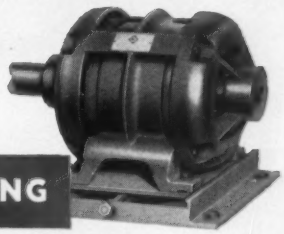
No heavy, expensive belts to replace . . . no dirt-catching belt dressing. In addition, the drive is practically vibrationless, increasing life of card and making it easier to keep in adjustment.

Allis-Chalmers textile specialists are located in District Offices in textile areas throughout the country to help you with your drive problems. For more information on Allis-Chalmers Textile Drives, call your nearby A-C District Office, or write Allis-Chalmers, Milwaukee 1, Wisconsin, for these bulletins:

Handy Guide to Motor Selection	51B6052
Quick-Clean Textile Motors	51B6055
Individual Card Drives	51B7867
Loom Motors	51B7111
Roving Frame Motors	51B7896
Handy Guide to *Texrope* Drives	20B6051

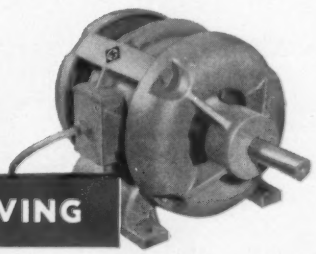
Quick-Clean and Texrope are Allis-Chalmers trademarks.

OTHER ALLIS-CHALMERS TEXTILE DRIVES



SPINNING

Wide open air passages and powerful fans of *Quick-Clean* design sweep dirt and lint right through and OUT of these motors. Sealed, double-width bearings.



ROVING

Quick-Clean motor with special slow acceleration characteristics. Takes almost three times as long as standard motor to reach operating speed. No special control required.

WEAVING

Allis-Chalmers loom motor has oversize rotor, stator and bearings. Rotor diameter is as great as possible to provide maximum inherent flywheel effect, while slip has been regulated to produce minimum speed variation. External flywheel can be furnished for looms requiring still greater Wk^2.

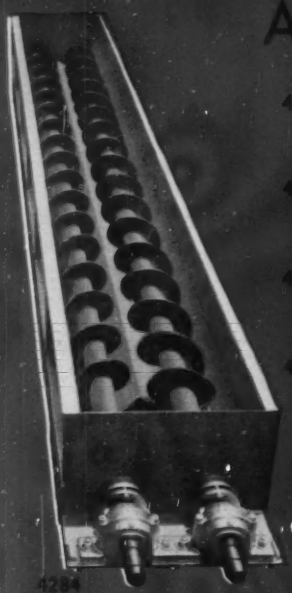
CHALMERS

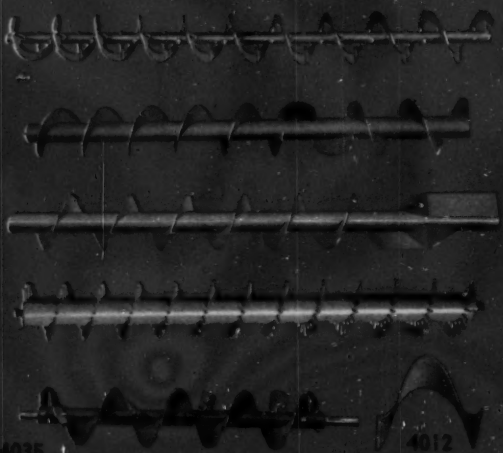
A-C ALLIS-CHALMERS

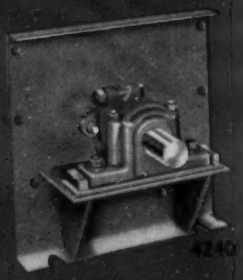
A-4622

Continental SCREW CONVEYORS

ALL SIZES—ALL TYPES

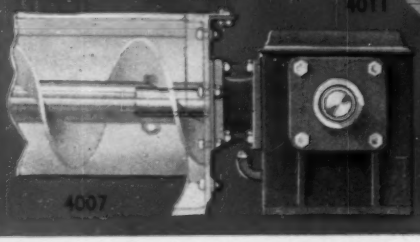

4284

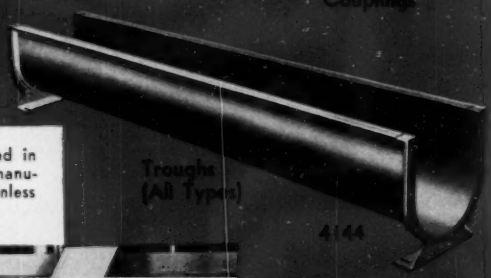

4019
4060
4131
4071
4035
4012
4011
4009


4240
Welded Steel Box End with Pillow Block and Dust Seal

4236
Ball Bearing Hanger

4006
Couplings

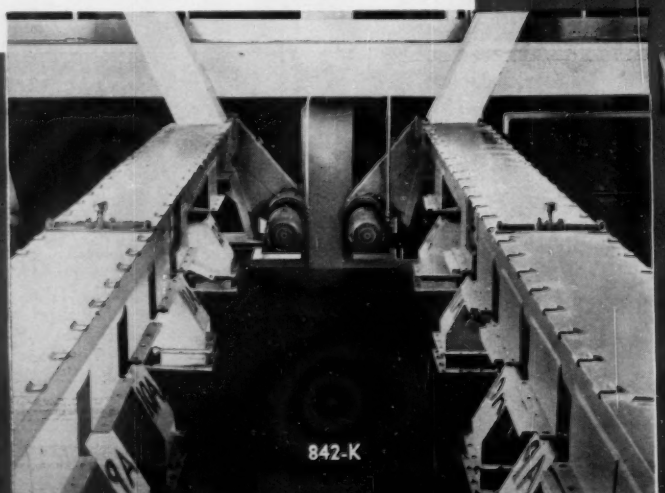

4007
Enclosed Countersheft Box Ends—Babbitted or Ball Bearing

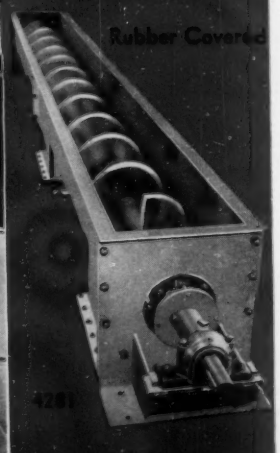

Troughs (All Types)
4144

Continental Screw Conveyors and Accessories are manufactured and stocked in all standard sizes for prompt shipment. Continental is also equipped to manufacture special Conveyors for special purposes, such as Rubber Covered, Stainless Steel, Archimedean and Agricultural types. Write for Catalog CC-541.

CG-5402

Staggered
4281

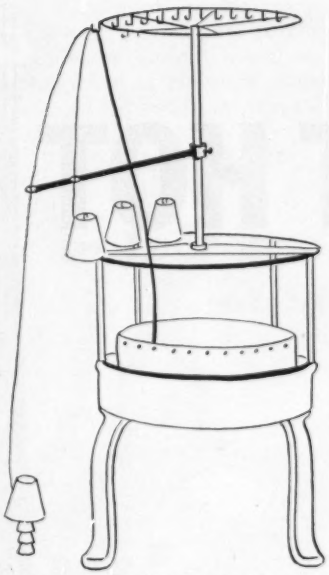

842-K


Rubber Covered
4281

Industrial Division **CONTINENTAL GIN COMPANY** Birmingham, Alabama

not require the use of water. The operator merely applies the cleanser and wipes it off on a disposable paper towel. A prominent sign at each dispenser reminds the knitters to wash hands before handling the fabric. Results are excellent, and dirt or oil spots are no longer a problem.

In another instance a production problem was solved by a simple addition to the knitting machine. Most of the work on our 24-feed rib machines consisted of striped effects where attempts are made to utilize odd yarns usually unsuitable for the regular machine count of 8, odd 14 and 18. Thus, the knitting department was frequently compelled to run two cones at a single feed. This operating requirement was made feasible by the attachment of a special feed rod to the center column. This enables the use of two cones at any desired feed on the knitting machine.



CONTRIBUTOR No. 8692

HOW OTHER MEN MANAGE

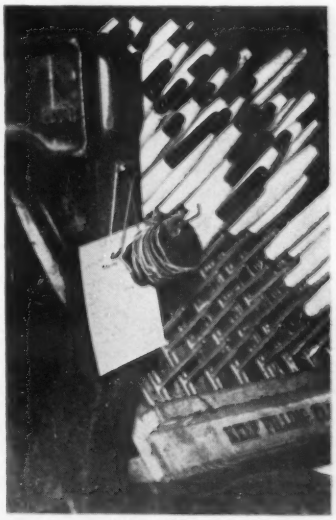
"Two-Way" System Prevents Mixed Filling

EDITOR TEXTILE INDUSTRIES:

In our plant we use a great variety of filling. For example, on a section of 36 looms we will sometimes have as high as 15 different counts and types of filling.

We had a lot of trouble with the battery men mixing filling, and some was also mixed in quilling.

Like most mills, we have a system for keeping different types of filling straight. We have colored tickets with the filling count plainly marked, and a "two-way" hook



on each loom. When a new warp is put in, the warp ticket comes from the office of the overseer of weaving, with the color ticket stapled to it. When the warp ticket is picked up by the office, the filling ticket is hung on the prong and left there. This has eliminated starting with the wrong filling.

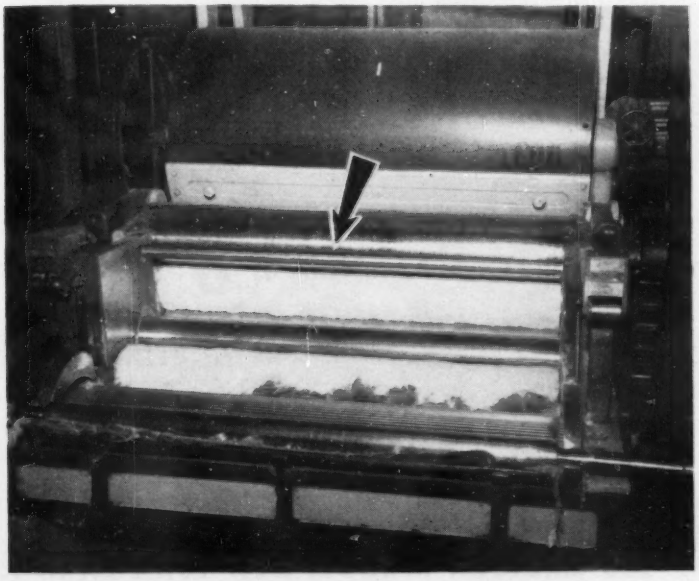
A pilot board is set up at two places in the weave room, and every time a new type of filling is used a color is chosen for it and

How to Keep Sides of Picker in Alignment

EDITOR TEXTILE INDUSTRIES:

A 40" steel rod installed between picker front sides (see illustration below) serves to brace the sides and keep them in proper alignment. This additional brace also prevents sides from breaking in the event of lap up and the extra pressure which may be applied on the sides by the loggerheads.

CONTRIBUTOR No. 8713



KEEP IT HOT

you save money at higher temperature with

RAPIDASE®

Continuous high temperature de-sizing has been adopted by virtually every large dyer and finisher in the country. The majority of these use RAPIDASE. One reason is that of all enzyme de-sizing preparations, RAPIDASE is most heat resistant and consequently most suitable for the speedier and more economical de-sizing at higher temperature.

WALLERSTEIN COMPANY, INC., 180 MADISON AVENUE, NEW YORK 16, N. Y.

placed on the pilot boards.

We require quillers to initial each ticket as yarn is put on the quill boards, and when the battery man finishes up the board he also initials the ticket and hangs it on the prong.

From long years of supervising people, I have found that a person is much more careful when he signs his name to his work. This requirement has ended our trouble with mixed filling.

CONTRIBUTOR No. 8769

Easy Way to Increase Drying Surface of Slasher Cylinders

EDITOR TEXTILE INDUSTRIES:

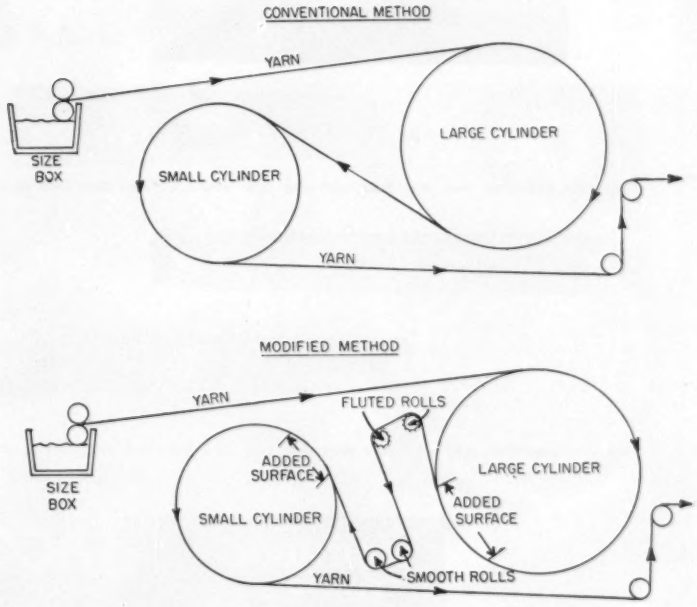
Since many mills still are using two-cylinder slashers, more drying surface is needed. To achieve this, we have increased our drying surface 15% by threading our slasher differently and using extra rolls.

The yarn is brought directly from the size box around the large cylinder to about 350 degrees. There we have installed two 6″ fluted rolls to turn the yarn toward the floor only to be picked up by two 6″ smooth rolls and carried completely around the small cylinder. From there the yarn passes under the large cylinder and onto the lease rods and beam.

We have found this method very effective in increasing our drying surface after sizing. The rolls are easily installed, being attached to the slasher frame, and are relatively inexpensive.

No positive drive is needed as the yarn itself will turn the rolls as it does the slasher cylinders; however, ball bearing bushings should be installed with the rolls to insure free turning.

CONTRIBUTOR No. 8594



$100 HURRY! HURRY! HURRY! **$100**

Kink Contest Closes April 15, 1955. Send Your Entry Now!

Every kink, short-cut, time-saver, or quality improvement suggestion entered in the contest will be paid for immediately upon acceptance. The $100 award will be made as soon as all entries are judged.

The contest rules are simple:

► All contributions must be postmarked not later than midnight, April 15, 1955.

► No limit to the number of entries an individual may submit in any one contest.

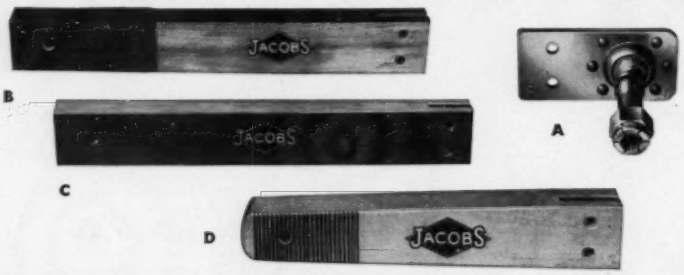
► All entries paid for upon acceptance — no waiting. Extra payment for photographs that are usable. Extra consideration is also given kinks accompanied by legible pencil sketches or drawings.

► Entries must not have been published previously and must not be submitted to any other publication.

Send your contest entry to: Editor TEXTILE INDUSTRIES, 806 Peachtree St., N. E., Atlanta 5, Georgia.

Sweepsticks and Connectors

by JACOBS *For Maximum Loom Efficiency*



B

C

A

D

A. VAN-DAR HEAD

A replaceable rod end bearing for all types of JACOBS sweepsticks. Allows close fit on pick arm stud and avoids hole elongation to give a pick that is absolutely even. Heads and bodies are individually replaceable.

B. RUBBERWELD

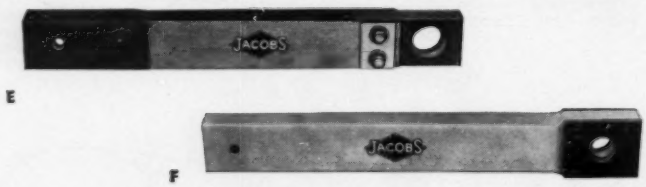
Patented construction of chemically bonded plyweld and neoprene gives the smoothest, most resilient pick known to the industry.

C. RUBBERIZED FABRIC

Molded rubber combined with fabric. Uniform consistency assures maximum strength and length of life.

D. HICKORY

Made of highest grade stock. Economical and long-wearing.



E

F

E. RUBBERWELD (with plastic head)

Has removable head of high-impact plastic. Body is long-wearing, resilient, and replaceable.

F. REINFORCED CANVAS

High quality Army Duck reinforced by plastic blocks on each side of stud hole for long wear.

The Bullard Clark Company

SOUTHERN DIVISION Charlotte, N. C.

JACOBS

NORTHERN DIVISION Danielson, Conn.

G

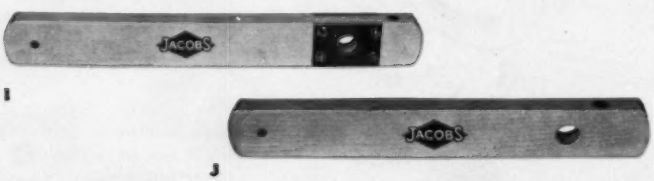
H

G. RUBBERIZED FABRIC

Molded cloth and rubber. Reinforced at stud hole by plastic plates and built up at lug hole for improved performance.

H. LAMINATED

Constructed of highest quality Plyweld or Pakweld, in regular design or streamline style for lighter weight.



I

J

I. REINFORCED HICKORY

Made of highest grade hickory with fiber reinforcements at the stud hole for longer wear.

J. HICKORY

Highest grade hickory but without reinforcements. The most inexpensive sweepstick of the JACOBS line.

JACOBS *Can solve ANY Sweepstick or Connector Problem!*

NEW Equipment AND MATERIALS

Instrument Measures Fabric Thickness Without Touching It

A non-contact nuclear gauge which measures the weight per unit area or thickness of a continuous running strip of material such as textile fabrics was introduced recently.

Called a Beta Gauge, the measuring instrument is based upon the principle of the absorption of beta rays emitted by radio-active isotopes.

A tolerance indicator actuates a visible or audible warning if predetermined limits are exceeded. The controls may be set to report only a defect which persists beyond a specified length of time or a sum of deviations within a certain period.

The Beta Gauge may be connected with the processing mechanism to provide continuous adjustment automatically, thus assuring uniform results.

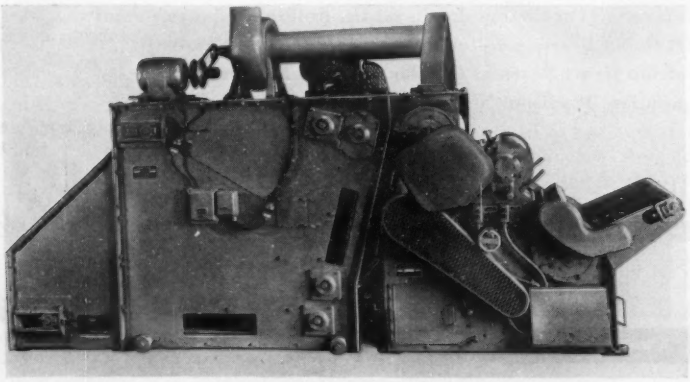
Curtiss-Wright Corp., Wood-Ridge, N. J.

More data? Write ◆ or use card, p 229; list D-101

Very Efficient Blending Feeder and Random Web Producer

The Model 40-B Rando-Feeder and Rando-Webber incorporate new and improved features using the basic design. The result is more versatility and improved performance.

The improved Rando-Feeder has a constant output rate from full hopper to almost empty and requires less attention by operator. Several of the improvements are:



(1) The hopper has full 50 cubic foot capacity;

(2) Floor apron gives even pressure of fiber on elevating apron with speed readily adjustable;

(3) Stripper apron returns excess fibers to rear of hopper, thus preventing jamming at the elevating apron—there is no feeler plate or start-stop action;

(4) New rotary condenser screen box eliminates screen belts;

(5) Improved selective output control is unaffected by wide variations in hopper level.

In blending and blending lines this feeder is most acceptable. A continuous sandwich blend made with three or more of these machines in line shows uniformity depthwise, widthwise, and longitudinally, inch by inch, and yard by yard.

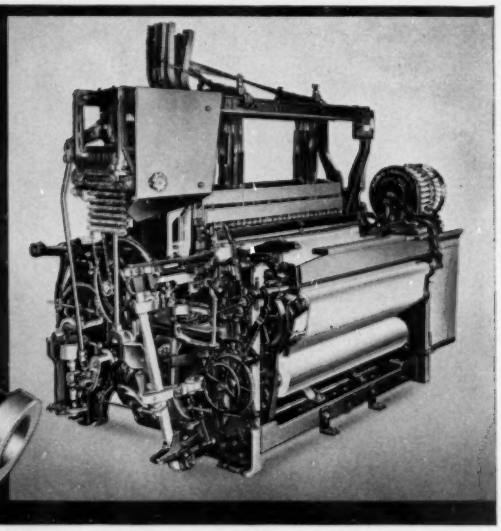
Performance of the Rando-Webber

LOOMS

number four of a series depicting

MORE AND BETTER TEXTILE PRODUCTION WITH HYATTS

Disassembled Draper Loom camshaft housing with a Hyatt Wound Roller Bearing.



Draper Model XD Loom with various sizes and types of Hyatt Roller Bearings on the crankshaft, camshaft, rockershaft, whip roll, whip roll arms, yarn beam and other principal positions.

More "firsts" and fewer "seconds" are the natural result when the principal shafts of your looms are equipped with Hyatt Roller Bearings.

Hyatts prevent lubricant from splattering on the cloth because all housings are securely sealed.

Moreover, Hyatt-equipped looms require considerably less starting power than when old-fashioned sleeve bearings are used. In fact, Hyatt Roller Bearings reduce friction so that looms can be easily turned by hand whenever necessary—another reason why you're always sure of *more and better textile production with Hyatts!* For further details on the profitable application of Hyatt Roller Bearings to textile machinery, request Bulletin T-54 from Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey.

HYATT ROLLER BEARINGS

STRAIGHT BARREL TAPER

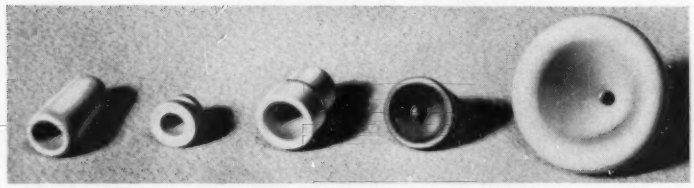
is improved both in random webs and output efficiency. In addition, maintenance is minimized by using heavier motors and drives and locating them where they are readily accessible. The improved unit has new double-drive rotary condenser interchangeable with feeder condenser, permitting a minimum of spares. A new air chamber design improves web uniformity . . . has large accessible clean outs.

The Rando-Feeder and Rando-Webber are available in 3 sizes: 40", 60", and 84".

Curlator Corp., Textile Division, East Rochester, N. Y.

More data? Write or use card, p 229; list D-102

Ceramic Trumpet Guides for Roving, Drawing, and Carding



New AlSiMag trumpet guide and trumpet insert designs are on test by a number of textile mills. Results reported so far are highly favorable. In general, these mills find that these new guides assist in maintaining uniform tension, increase sliver uniformity, and materially reduce sliver breakage.

Mills report that there is no sign of wear on these guides, even on those which have been in constant use for several months. Some of the guides on test are made of AlSiMag 192 (standard) and some of AlSiMag 513 (super long wearing).

Both these guide materials are extremely hard and are homogeneous. They have a smooth finish and are manufactured to close tolerances.

American Lava Corp., Cherokee Blvd. & Mfrs. Rd., Chattanooga 5, Tenn.

More data? Write or use card, p 229; list D-103

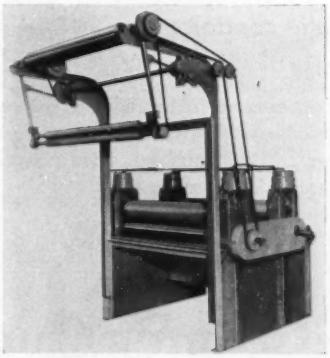
Dual Saturator for Wet Processing

The Wiesner-Rapp Model "M-8" dual saturator is used for wetting out and applying finish to many types of fabrics.

It consists of two pairs of 8" diameter by 50" face squeezer rolls, each having stainless steel bottom and rubber covered top rolls. The rolls are mounted in adaptor type bearings which in turn are mounted in stainless steel supporting stands. There are two separate stainless steel pad tanks with an immersion roll in each. These tanks are supported between stainless steel side supports.

Pressure to the top rolls is supplied through Bendix-Westinghouse Rotochambers which have no stuffing glands, therefore do not leak; and when the air is released from the pressure side, the top roll is automatically raised out of contact with the bottom roll.

In the larger of the two tanks there is a combination plug drain and overflow drain, making it possible to drain the tub completely or maintain a constant liquor level when so desired.



At the leaving end of the saturator there is mounted a roll type folder equipped with stainless steel draw roll. This folder has a maximum swing of 48".

Expanders, drive, and other features can be included to meet customers' requirements.

The Wiesner-Rapp Co., Inc., 1603 Seneca St., Buffalo 10, N. Y.

More data? Write or use card, p 229; list D-104

Static Eliminator for Looms

A new, extremely effective static eliminator for looms improves quality, reduces seconds, and increases output.

Known as the Chapman Static Eliminator, Model A2-L, it is electrically operated and consists of a small power unit which energizes one or two inductor bars, as necessary, installed across the width of the loom. These inductor bars provide a constant field of ionized air from which the charged ends may pick up the required amount of positive or negative charges to neutralize themselves.

The use of this static eliminator on looms has been found advantageous in curing static problems such as: (1) Lint and dust accumulate on drop wires or heddles being attracted to warp and woven into cloth, causing heavy streaks; (2) Yarn in the shuttle being attracted to the loom, causing looping or snagging; (3) Ends or fibers repelling each other, causing static cracks; (4) Warp ends being attracted to adjacent ends when breaks occur, causing stop motion to operate improperly; (5) Use of excessive moisture in an attempt to control static.

This equipment works equally well on wool, cotton, synthetics, plastics or blends.

The Portland Company, 22 Fore St., Portland 6, Maine.

More data? Write or use card, p 229; list D-105

Spark-Proof Fork Truck

A series of special spark-proof, diesel-powered fork lift trucks in 3000-lb and 4000-lb capacities is suitable for use in areas where ordinary, non-protected trucks are prohibited.

Electric battery, wiring, electric starters, electric generators, electric instruments are not used.

The engine is started by means of a hydraulic motor. The starter motor is operated by the driver from his position on the truck by simply releasing a conveniently located mechanical lever.

Electrical dash instruments have been replaced by mechanical or pressure operated instruments. Because a battery is not required, the electric generator is eliminated.

Low engine surface temperatures are further reduced by means of a

Parks-Cramer

CERTIFIED® CLIMATE

Automatic Airchanger

Gradumatic® Humidification

Psychrostat® Regulation

Evaporative Cooling

Automatic Filters for air and water

Laboratory Air Conditioning

Since 1904 when Stuart W. Cramer originated the term "AIR CONDITIONING," Parks-Cramer humidifying and Certified Climate systems have been helping hundreds of textile mills make more and better yarns and fabrics, at less cost.

The Parks-Cramer line is complete, from single humidifiers no larger than the palm of your hand, to central station systems combining humidifying, heating, cooling by evaporation or refrigeration, ventilating, filtering, air circulation — all under close, reliable, economical automatic control.

Our engineers are interested in the study and solution of any air conditioning problem in your mill, whether simple or complex — large or small.

Central Station Systems

Booster Humidification

Refrigerated Cooling

Turbomatic® Humidification

Yarn and Cloth Conditioning

Gradual Acting Controls

Parks-Cramer Company

Design · Manufacture · Installation · Service
Certified Climate and Traveling Cleaner Systems

FITCHBURG, MASS. • CHARLOTTE, N.C. • ATLANTA, GA.

398

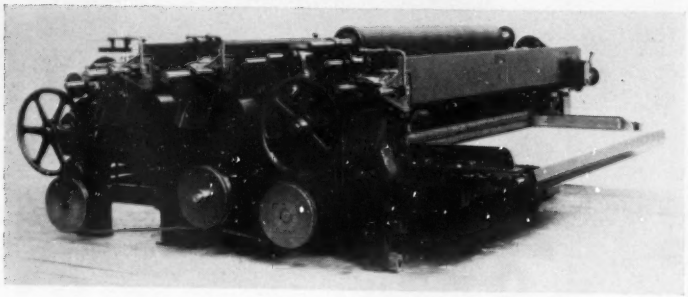
water-cooled exhaust manifold. A water muffler is also used which eliminates the possibility of sparks passing out the engine exhaust pipe.

The trucks are available with static-conductive tires which minimize electric sparks due to accumulation of static energy. They may be provided with a protective wood bumper on three sides of the truck body to prevent sparks which might result from the truck body accidentally striking other spark producing surfaces. The trucks may also be provided with non-sparking metal forks to eliminate sparks which might result from the forks striking masonry walls, columns, etc.

The Buda Division, Allis-Chalmers Mfg. Co., 15425 Commercial Ave., Harvey, Ill.

More data? Write ◀ or use card, p 229; list D-106

Carbonizing Unnecessary When This Machine Is Used



Removal of vegetable matter from wool by the machine shown in the accompanying photo is said to be so complete that woolen mills using it have found that carbonizing is no longer necessary.

Also, according to reports, the most burry wools obtainable can be processed in worsted mills where this machine has been installed replacing the breast on the worsted cards.

A. Thibeau & Co., Tourcoing, France.

More data? Write ◀ or use card, p 229; list D-107

"Dry" Fluid Drive Does Not Slip at Normal Operating Speeds

A new development in industrial power transmission, called Flexidyne, is described as a "dry" fluid drive. At normal operating speeds it does not slip. At the same time, in the case of an overload, it is slippage which gives protection.

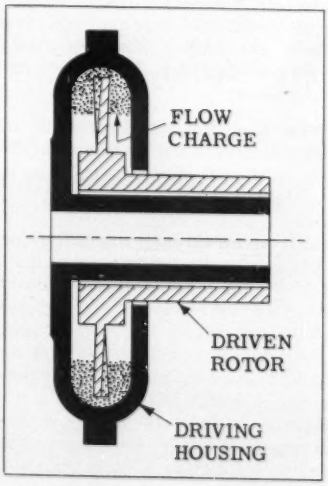
Wide application of the unit is anticipated for industrial drives involving heavy inertia and shock loads on such equipment as compressors and other machines in textile mills.

The Flexidyne Drive is made up of a housing, inside of which a rotor is free to turn concentrically. Between the two are fine particles of spherical steel shot, called the "flow charge," which acts very much like a fluid. It is the flow charge which transmits power from the housing to the rotor. This flow charge is easy to seal in, has a high density, and can stand relatively high temperatures.

How the drive works is described as follows:

1. The motor is connected to the housing, and starts it turning at no load.

2. The flow charge is thrown to the circumference of the housing, is compressed by centrifugal force, and revolves with the housing.



3. The rotor, connected to the load, is started and accelerated by the friction and wedging action of the revolving flow charge.

4. Rotor and housing reach identical speeds—the Flexidyne operates with zero slippage between motor and load at normal running speeds.

5. In case of an overload, before damage is caused, the Flexidyne rotor slips relative to the housing, overcoming the friction and wedging action of the flow charge. A thermal switch which automatically cuts the electrical circuit if an overload persists is available as optional equipment.

The amount of the flow charge determines the torque capacity. Because it is easy to vary the amount of this charge, the Flexidyne will give the exact starting torque needed for anything from the smoothest to the fastest start.

Accurate overload protection is assured as the Flexidyne can be set to slip at anywhere from as low as a gentle 20% over full load torque to as high as peak motor torque.

Dodge Mfg. Corp., Mishawaka, Ind.

More data? Write ◀ or use card, p 229; list D-108

New Resins Minimize Yellowing and Strength Loss

The use of three new Emboset resins—Emboset Loclor, Emboset NR, and Emboset B—keeps yellowing and tensile strength losses at a minimum.

Emboset Loclor is a low chlorine retentive resin that produces crush resistance and stabilized effects on cotton and rayon. Because of its high stabilizing efficiency it has been found to be an excellent product in the production of embossed and glazed chintz effects on cotton. Emboset Loclor is recommended on fabrics which are to be subject to bleaching as well as washing. It has high shelf-life, is very stable, easily diluted in water, and runs with no foam.

Emboset NR is an outstanding product in the respect that there is very little free formaldehyde liberated in the processing and from the goods in an unwashed state. This liquid resin produces crease resistance, shrinkage control, and firmness on hydrophobic fibers such as acetate, Orlon, Dacron, and nylon. It is found to be especially efficient on heavy nylon shoe cloth, and for sheer

nylon blouse fabric where a firm, resilient hand is desired. It is very economical and easy to run and cure. It has high shelf-life and especially good durability to washing and dry cleaning.

Emboset B is a liquid stabilizing and crush proofing resin with exceptional shelf life and economy in use. It produces a soft hand with superior fastness properties, crease resistance, and shrinkage control. For use on synthetics and mixtures.

Metro-Atlantic, Centredale, R. I.

More data? Write ◆ or use card, p 229; list D-109

Helanca Yarn Bobbin

A new one-piece bobbin, having no cracks for trapping of fine denier yarns, has been developed for use with Helanca yarn.

This bobbin is of high strength.

Hayes Industries, Inc., Jackson, Mich.

More data? Write ◆ or use card, p 229; list D-110

Device Makes Card Fly Spinnable

When installed on cotton type cards processing cotton or synthetic fibers, the Royal card fly separator and cleaner separates the card fly from the motes, leaf trash, and sand so that the card fly becomes spinnable. Also, quality of yarn made from sliver off these cards is of higher quality and has a higher luster or sheen.

Textile Appliance Co., Inc., Gastonia, N. C.

More data? Write ◆ or use card, p 229; list D-111

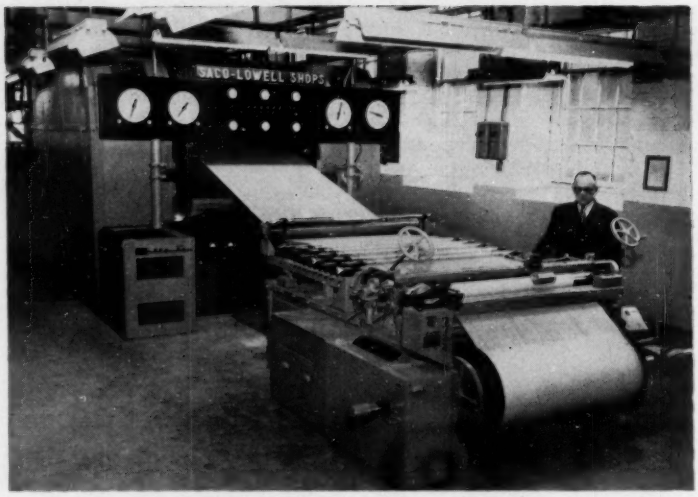
Liquid Cooler for Lab

A compact, portable, liquid cooler that provides liquid cooling in an operating range of from plus 60 F to minus 20 F with control within plus or minus ¾ F is recommended for use in textile mill laboratories.

Among the advantages claimed for the Model L-1 unit are that it saves lost time in setting up; saves lost time in getting on condition; saves the cost and time of handling dry ice; saves the cost of expensive auxiliary control equipment; eliminates wasting of materials, duplicate runs due to temperature fluctuations; conserves time of highly skilled technical personnel.

Mayer Refrigerating Engineers, Inc., Lincoln Park, N. J.

More data? Write ◆ or use card, p 229; list D-112



The Saco-Lowell Positrol Warp Sizer

Yarn Is Dried from Core Out on this Slasher; Fewer Warp Breaks at Loom

Yarn processed on the new Saco-Lowell air-drying slasher is brought up to a drying temperature gradually so that it is dried from the core out to prevent a hard crust forming on the surface and trapping moisture inside.

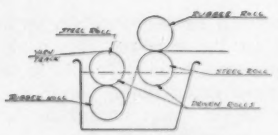
Built with four major assemblies—the magazine creel, size vat, drying chamber, and head end, the machine is highly versatile, being equally efficient on high sley as well as low sley warps.

Because it operates with positive control of size level, size temperature, size application, air temperature, air moisture, yarn tension, the sheet width in the dryer, loom beam density, yarn regain, humidity in exhaust air, humidity in each compartment, press roll loading, and yarn speed, the slasher has been designated as the Saco-Lowell Positrol Warp Sizer.

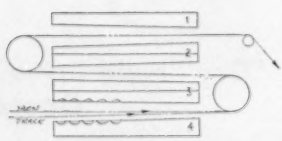
The Size Vat. According to the manufacturer, yarn processed in this new size vat has shown superior weaving qualities. It is round and smooth, with a tough protective film which passes through the drop wires, harnesses, and reed with a minimum of shedding, and with a noticeable reduction in loom stops originating with warp breaks.

Components of this size vat are made of one material only, thus there is no harmful electrolytic action. Capacity is only 28 gallons so that automatic size level controls are constantly calling for a fresh supply of size. This, plus the fact that considerably less steam is required to keep this quantity of size at proper temperature, results in a more uniform viscosity of the size solution.

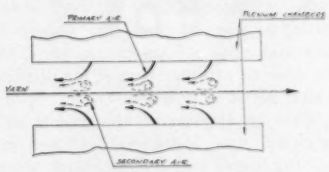
There are only four rolls, two of which are stainless steel and two of a special patented rubber covering that yields sufficiently to allow each individual thread to sink into it so that the surplus size is removed and the yarn retains its cylindrical section. Yarn will pick up as much as 6% additional solids from the size



Size vat cross section.



Plenum chambers and path of yarn through drying chamber.



Air movement in drying space.

mixture through a pneumatic loading control.

The Drying Chamber. Two of the major characteristics of this unit are: (1) movement of the air is in the opposite direction to that of the yarn; and (2) the air with the greatest moisture content is in contact with the wettest yarn.

The first results in the creation of a certain amount of surface friction between the air and the surface of the yarn in a manner to force the protruding ends of fibers to lie flat along the long axis of the strands and also to move the saturated air away from the previously dried yarn.

Yarn from the finishing size roll passes directly into the dryer unit along a strictly horizontal plane so that there is no possibility for the passing sheet to pick up surplus size or stray fibers from the finisher squeeze roll. Guide rolls are Teflon-coated to prevent starch mixes adhering to their surfaces. An accompanying sketch shows how the yarn goes through the drying chamber.

The yarn travels in a perfectly straight line perpendicular to the axis of the carrier rolls throughout the entire path of the yarn sheet; also, control of the air currents makes it possible to maintain a controlled temperature gradient throughout each of the drying chambers.

Where the yarn leaves the dryer, it may contain as much as 15% moisture. But on the outside there is a cooling fan so that the air, at atmospheric temperature, in rapid movement by the cooling fan, and the movement of the yarn through the head end, brings the moisture content to 6, 7, or 8% as required.

Over-drying of the yarn when the slasher is slowed down or stopped for doffing or other reasons is prevented by means of a special automatic control which admits live steam into the bottom plenum of each pass when the moisture content of the air in that location becomes dangerously low.

Head End. The Model 45 head end featuring simplicity of construction and a multi-motor drive are provided.

Since the guide roll centers are positioned ahead of the center of the drag roll, the pressure of the yarn tends to pull the guide rolls tighter to the drag roll, thus creating a set of conditions which will prevent chafed and damaged yarn.

Press roll is the traversing expansion type, running on a set of anti-friction bearing trucks.

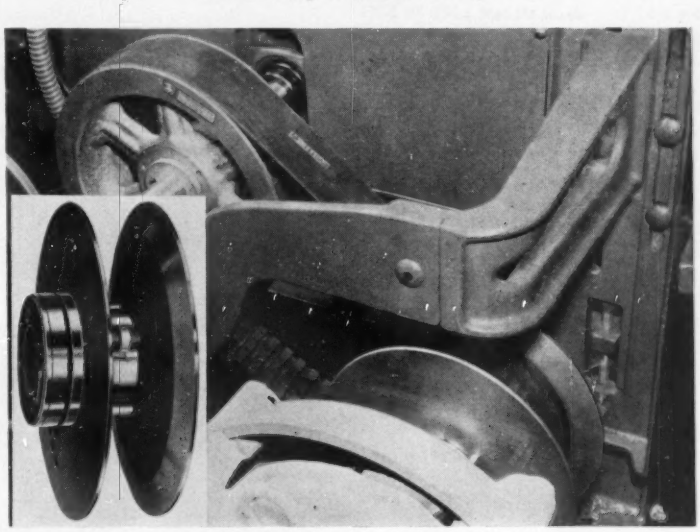
Operating pressure is developed by an air pressure system acting through a cylinder and piston. The amount of pressure is regulated by the operative and when once established for a given type of warp, will require no further adjustment. Any air which will tend to increase the pressure over the predetermined point will be bled off automatically. This assembly will produce beams of uniform density throughout.

Beams up to and including 32" in diameter can be accommodated.

Saco-Lowell Shops, 60 Batterymarch St., Boston, Mass.

More data? Write ◂ or use card, p 229; list D-113

Wide-Range Adjustable-Speed Drives Save Space, Money



A new single-groove wide-range adjustable-speed drive available in "Q," "R," and "W" belt sections will safely transmit up to 30 hp.

The drive permits a speed variation of as much as 100% at horsepower capacities comparable to drives having two or three belts. Installation results in a considerable saving of space and money as compared with multi-V-belt adjustable-speed drives.

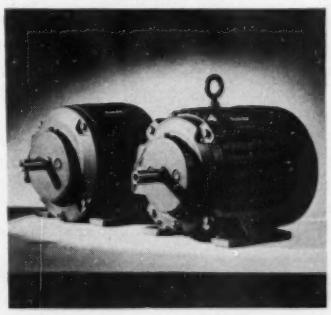
This new drive consists of: (1) Single-groove wide-range adjustable-diameter sheave with exclusive double-taper hub construction; (2) Wedg-Tite companion sheave with groove angles precisely machined to match Wedgbelt angle; (3) Wide-range Wedgbelt, built to transmit greater horsepower than before; (4) Adjusto-Slide motor base, with single screw adjustment, designed for use with American adjustable-speed drives.

The American Pulley Co., 4200 Wissahickon Ave., Philadelphia 29, Pa.

More data? Write ◂ or use card, p 229; list D-121

Totally-Protected A-C Motors

A new line of totally-protected a-c motors combines eye appeal, rugged construction, and precision performance.



Regardless of mounting positions, the new motor offers complete protection against drip, splash, and falling objects. Ventilation louvers are positioned "high and dry" in the end brackets. The frame extends beyond the coil heads to give full protection to the windings, an especially important feature when end brackets are removed. Compact, rugged brackets ensure shockproof shaft support by placing the bearing mountings closer to the frame.

New neoprene gaskets afford a

positive seal between the frame and conduit box, and these gaskets have indexed "pressure knobs" to securely hold each lead. Conduit boxes can be positioned in any of the four quadrants for ease of installation.

In three categories of this enclosed group are the fan-cooled, corrosion-proof, and explosion-proof design.

Reliance Electric & Engineering Co., 1088 Ivanhoe Rd., Cleveland 10, Ohio.

More data? Write ◂ or use card, p 229; list D-114

Convert Dry Cans to V-Belt Drive

Dry cans in wet processing plants can be converted at nominal cost from gear or chain drives to V-belt drive to provide:

(1) Silent, smooth operation;
(2) Elimination of the use of oil and grease;
(3) High speed operation;
(4) Long, trouble-free service;
(5) Low maintenance expense;
(6) Automatic pneumatic belt tightening.

The Textile Shops, Spartanburg, S. C.

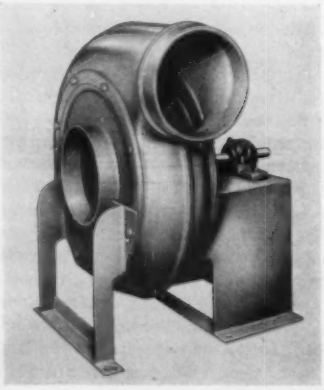
More data? Write ◂ or use card, p 229; list D-115

Rugged Fans More Versatile and Efficient

Cast iron fans for handling textile fibers and other rugged industrial applications provide greater versatility and efficiency.

For specific applications, any of four different wheels or three drive arrangements may be selected. Protective accessories and coatings are available for high temperature and extreme abrasion installations.

This redesigned 500 series of fans features a wide range of sizes with wheel diameters from 8¼ to 34½ inches and inlet pipe sizes from 4½ to 18 inches. Air volumes range from 150 to 12,000 cubic feet per minute.



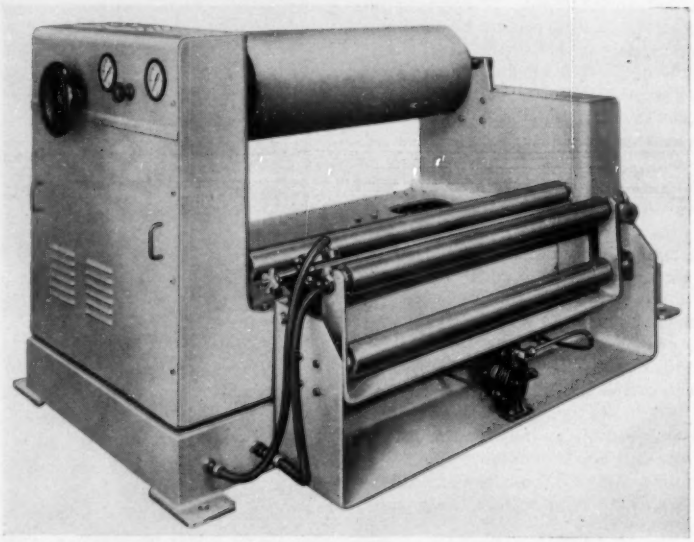
Fan housings are convertible to all normal discharge directions and are also reversible. Large heavy duty shafts with grease lubricated double row ball bearings provide long fan life with minimum maintenance. Bearings are triple sealed against penetration by powdered material handled by the fans.

Special fabricated wheels can be made from Everdur or stainless steel, and wool wheels are available in either cast iron or bronze.

Westinghouse Sturtevant Division, Dept. 022, 200 Readville Street, Hyde Park, Boston 36, Mass.

More data? Write ◂ or use card, p 229; list D-116

Backstand Controls Both Web Tension and Edge Position



A backstand recently announced controls both tension and edge position of a moving web as it is fed to a rewinder, slitter, converting machine, printing machine or other similar devices requiring such control.

Tension may be maintained at any selected value up to 4 lb/in. within 5% at any steady web speed. Edge position is maintained within .015 inch with a runout of ± 3 inches from center position.

The backstand operates at speeds up to 1200 fpm, and the larger model will accommodate a 2000-lb roll measuring 54 inches in width and 48 inches in diameter. Accurate control is maintained down to a three-inch core.

The tension control system is fully hydraulic. Use of incompressible fluid to transmit signals cuts response time to one-fourth that of an otherwise comparable pneumatic-hydraulic control system.

The unwind stand and the control systems are combined in an integral package requiring only electrical and air connections for operation.

The control panel may be installed remotely for the operator's convenience. The tension gauge may be calibrated to read in pounds per inch if only one web width is to be handled, or in total pounds of tension force.

Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.

More data? Write ◂ or use card, p 229; list D-117

Wet Processing Aids

Procol PW, a new surfactant, combines excellent protein-inherent protective and dispersing properties with soap-inherent detergent capacities, without producing the disadvantages usually associated with soap.

The odorless, light colored product is stable to bleaching powder, hypochlorite and peroxide solutions, and

is used in such solutions to give controlled bleaching action. As a result, bleached fabrics showing greater tensile strength may be obtained with the new detergent. Procol PW is well suited for vat, naphthol, and acetate dyeing because of its high dispersing level.

A new sequestering agent, Kalex G, is specifically for heavy metal ions such as ferric iron, nickel, cobalt, copper, zinc, manganese, etc. It displays very high sequestering power for heavy metal ions, and is not recommended for the sequestration of alkaline earth ions.

Hart Products Corp., 1440 Broadway, New York, N. Y.

More data? Write ◂ or use card, p 229; list D-118

High Speed Recording Tensiometer

The high speed recording tensiometer, developed by the Summit Research Laboratories of the Celanese Corporation of America for the measurement and proper regulation of yarn tension in the textile industry, is now available.

The instrument has a frequency response up to 120 cycles per second and a sensitivity as high as four millimeters deflection on a standard direct writing recorder per gram of tension in the yarn. Even at this high sensitivity, the instrument can be used under normal plant conditions.

Heavy machine and plant vibrations have no effect on the tensiometer, the record produced being a true record of tension variation only.

The sensing head is compact and very rugged, with a beam type of transducer using bonded resistance strain gauges. Stops are provided to prevent overstressing these beams. Methacrylate plastic pulleys are provided to the beams, and to use the instrument it is only necessary to place the pulleys over the running yarn and twist the sensing head until the yarn forms an S shape over the pulleys.

Custom Scientific Instruments, Inc., Arlington, N. J.

More data? Write ◂ or use card, p 229; list D-120

Waste Collector for "Shirley" Openers

A new waste collector unit is particularly suitable for "Shirley" opener installations where an exceptionally large amount of waste is removed by the "Shirley" beater from cotton being processed. It occupies a space 5′ x 4′ and is 11′ high.

The waste collecting chamber of the unit consists of a large canvas bag suspended from steel springs within a light steel framework. The bag is open at the bottom and the base of the bag is formed by the top of the sheet metal compartment below, consisting of two swivelling sheet metal doors which in their closed position become the base of the bag. These two metal doors are mounted longitudinally on cross shafts which extend outside the framework at one side of the unit, where they are linked together in such a way that the doors may be turned through an angle of 90 degrees by operating a short lever.

Trash-laden air is delivered by means of a fan which forms a part of the unit to the collecting bag. The air escapes through the woven fabric and the heavier particles of trash fall to the floor of the chamber.

At intervals when a sufficient quantity of waste has accumulated in the collecting chamber, the lever is operated to open the swivelling doors and the waste is deposited into the chamber beneath the bag. Two doors at front of chamber about 2½′ above floor level can then be opened and trash easily and conveniently swept into a truck or similar receptacle.

John Hetherington & Sons, Inc., North Marietta St. Ext., Gastonia, N. C.

More data? Write ◂ or use card, p 229; list D-119

FOR THE KNITTING INDUSTRY

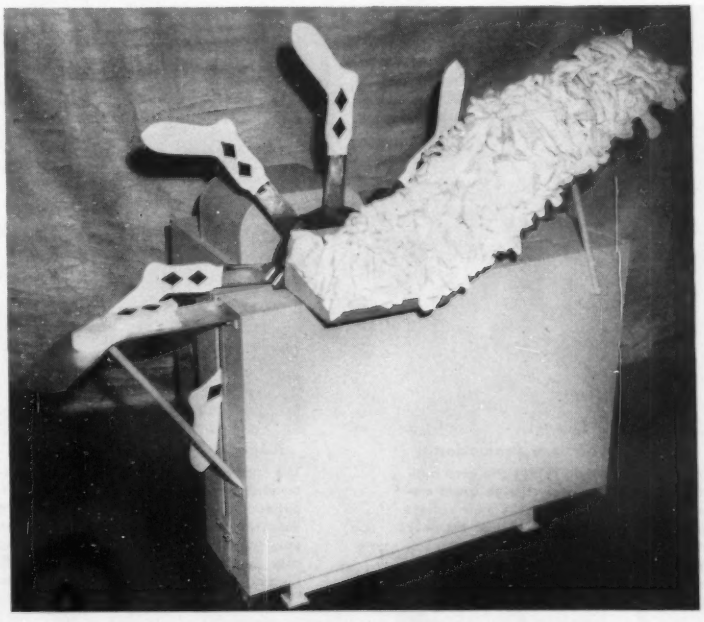
See this equipment at the Knitting Show Atlantic City, April 25-29

Board 200 Dozen Pairs in 8 Hours with this Dual Purpose Machine

Preboarding and final boarding of hosiery, gloves, sweaters, and underwear can be done much faster and at low cost with the new Sarco boarding machine which alternately heats the goods in process with infra-red rays and cools them, providing a superior finish.

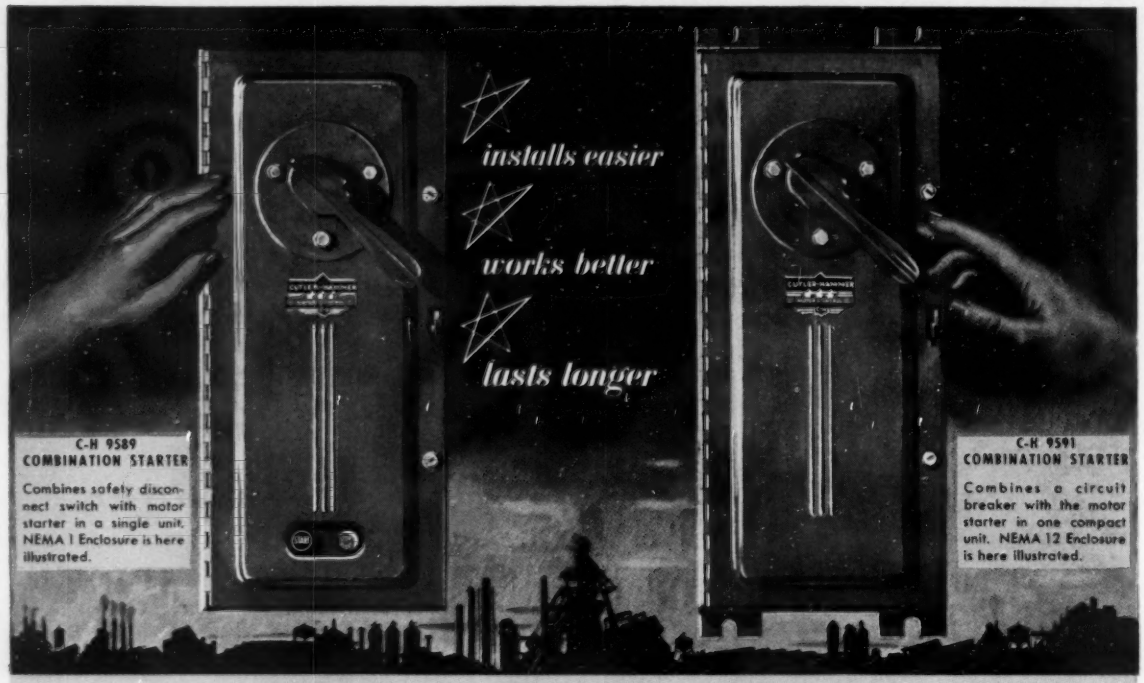
Since no steam or moisture is employed, bleeding, fading, and running of the dyes is eliminated.

The speed and temperature of this machine can be controlled, thus insuring the greatest possible production that an operator is capable of. The operator stands in one place (or sits) and thereby eliminates walking from board to board. There is no



WHAT'S NEW IN MOTOR CONTROL? ★ ★ ★ GET IT FIRST IN CUTLER-HAMMER

New Combination Starters in the Spectacular Line of Cutler-Hammer ★★★ Motor Control


installs easier
works better
lasts longer
C-H 9589
COMBINATION STARTER
Combines safety disconnect switch with motor starter in a single unit. NEMA 1 Enclosure is here illustrated.
C-H 9591
COMBINATION STARTER
Combines a circuit breaker with the motor starter in one compact unit. NEMA 12 Enclosure is here illustrated.

Users have had many dramatic proofs of the advantages built into Cutler-Hammer ★ ★ ★ Motor Control. They *know* the three silver stars on the Cutler-Hammer nameplate identify control equipment that sets three entirely new standards of motor control performance and value.

Star #1: Amazing savings in installation costs which often exceed the cost of the control.

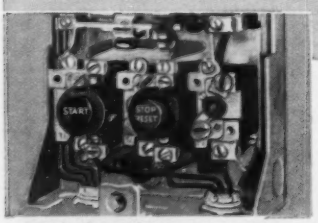
Star #2: Performance so uniform and dependable that *this* control often saves many times its cost by the production interruptions it avoids.

Star #3: Life so greatly increased that this control *never* requires maintenance expense in 90% of its uses.

Now combination starters are available in this spectacular new line of Cutler-Hammer ★ ★ ★ Motor Control. Your nearby Cutler-Hammer Authorized Distributor has been stocked and is ready to serve you. Bulletin 9589 Starters incorporate a rugged disconnect switch of advanced design with or without fuses. Bulletin 9591 Starters are equipped with circuit breakers. Order *now* for prompt delivery.

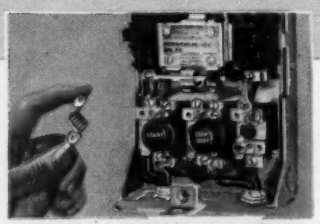
CUTLER-HAMMER, Inc., 1456 St. Paul Avenue, Milwaukee 1, Wisconsin.

CUTLER-HAMMER
★ ★ ★
MOTOR CONTROL
C-H



Full Three-Phase Protection

Only *three* overload relays can give complete three-phase protection to avoid motor burn-outs and their costly interruptions to production. And *only* Cutler-Hammer offers this complete three-phase protection in standard combination starters. You pay only for the third relay, nothing extra for special engineering or special enclosures.



Adjustable Load Sensing Coils

The accurate adjustment of overload protection permits motors to work harder without damage to motor windings. This is more important than ever with the newer type small frame motors. Adjustable load sensing coils in these new starters provide 3% loading accuracy instead of the 10% to 12% accuracy in competitive control.

Superlife Vertical Contacts

Experienced control users insist on dust-safe vertical contacts. And now the famous Cutler-Hammer vertical contacts have been doubly improved. First, their new lightweight design cuts bounce to reduce arcing. Second, any arcing that might occur is now pressure-quenched. Compare performance and see the difference.

waiting for the completion of a cycle.

With this new boarding machine, the operator is more efficient because it's clean, cool, and comfortable. It eliminates waste motion and speeds output since it paces the operator.

This machine is economical in operation because of the low cost for power. In tests for a period of more than one year the average cost was less than 60¢ for electricity consumed for each eight hours of operation.

Operators whose production on the steam pressure types of preboarders was less than 150 dozen per eight-hour day, increased their output more than 60% with no tiring physical effort.

The machine uses fewer boards—eight forms do the work of as many as 48 required for some types of preboarders. They are made of ¼" high tensile strength, highly polished aluminum alloy, and impart a smooth, wrinkle-free finish.

The maintenance cost on the first Sarco was less than $10.00 for a period of more than one year. The machine should run for 20 years, or more, with no major maintenance costs, due to the extra sturdy construction and the heavy duty parts used.

Occupying a space of only 3½′ x 5′, it will fit most anywhere in the plant, and requires only standard electrical connections. The machine can be quickly moved from place to place.

A special heavy duty hot air circulating system, complete with motor, ducts, switches, etc., for final boarding heavy weight hosiery is optional.

Southern Mill Equipment Corp., 508 West 5th St., Charlotte, N. C.

More data? Write ◂ or use card, p 229; list D-201

Take the Work Out of Straightening F-F Needles

Accurate testing and straightening of full-fashioned needles, as well as welt hooks, narrowing and picot points, can be economically performed with the Oerlikon Needle Pliering Projector now available, eliminating the necessity for doing this tedious operation manually.

Silhouette of the part to be straightened is magnified 10 times and projected on a ground glass screen, along with a reference drawing which shows the correct shape of the part. The operator then manipulates the convenient controls until the needle, welt hook, narrowing or picot point shape conforms to that of the reference drawing.

The advantages provided by this equipment are particularly evident

Packaged Year-Round Air Conditioner Uses No More Water for Cooling

A newly developed, packaged indoor weather control unit combining all the features of large scale air conditioning equipment provides year-round humidification, dehumidification, heating, and comfort cooling to meet individual requirements; also air washing, filtering, and changing.

Available in 3, 5, and 7½ ton capacities for use with or without ductwork, it has these features: (1) Therm-Evac control—when cooling is called for, humidification process is reversed by means of this control which cools the condenser. No additional water consumption is necessary for cooling besides that which is used for humidification. (2) "Dry" humidification — adequate humidification without the release of any free moisture. (3) Takes up little floor space.

Air-Perme-Ator Mfg. Co., 300 Preakness Ave., Paterson, N. J.

More data? Write ◂ or use card, p 229; list D-202

Machine Applies Two Dry Transfers to Hose Simultaneously

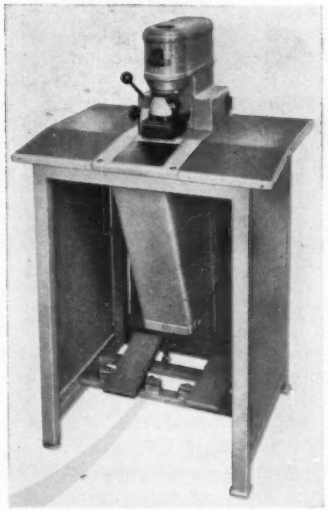
The Paramark Model 3 transfer machine for hosiery mills features the simultaneous application of two dry transfers to hose with substantial lowering of finishing department direct and indirect labor costs, faster delivery of customers' orders, simplified operation, and better quality transfers.

One operator places goods on small conveyor belts which carry the hose to the transfer irons. Sponge rubber stamping pads press the hose and transfer paper to the irons, applying one or two perfect impressions. Auxiliary conveyor units carry the goods to other operators who attach rider tickets, band, and box in one assembly line operation. Capacity output of the Paramark Model 3 is 2400 dozen pairs of hose in an eight-hour shift.

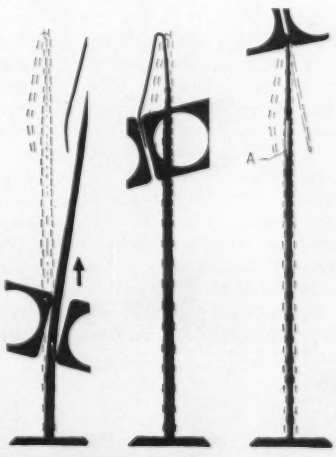
Fully automatic operation enables beginning operators to reach high volume production in a few days. Toe or heel transfer paper is quickly and easily adjusted for different sizes, and both rolls can be completely replaced in less than two minutes. After use, the transfer paper is neatly wound on a spool in the rear of the machine. High-speed sponge rubber stamping pads mold themselves to the contours of the goods, assuring uniformly clear transfers, while the iron heat may be adjusted to accommodate all types of yarns.

Paramount Textile Machinery Co., 131 S. Wabash Ave., Chicago 3, Ill.

More data? Write ◂ or use card, p 229; list D-203



NEEDLE PICTURE looks like this to operative (dotted line is reference drawing). Left to right: Straightening the needle shank, spring beard point, and spring beard.



when pliering spring beard needles. In this case it is possible not only to plier the shank of the needles in two planes at right angles to one another, but the beard of the needles can also be pliered in the pliering plane with respect to shape and point-opening, and in the other plane with respect to the position of the point in relation to the middle of the eye. The pliering position of the point of the beard is illuminated from below and becomes visible as a white line on the silhouette.

Women with some manual skill can readily be trained to operate the machine.

Alfred Hofmann & Co., 629-635 Fifty-Ninth St., West New York, N. J.

More data? Write or use card, p 229; list D-204

Cut Costs in Overlocking Operation

The Pola Gauge Attachment for Merrow, Willcox & Gibbs, Singer, and Union Special machines is especially designed to eliminate bar tacking bulk, to do away with extra handling and trimming, to give perfect control of the lock stitching operation with assured permanent lock. According to the manufacturer, it is guaranteed to increase efficiency, lower costs in the overlocking operation.

The gauge is easy to install and simple to operate. Once it is placed on the machine, there is no maintenance problem. The device swings out of the way of the operator when it is not in use.

Pola Enterprises, Inc., 1820 Spruce St., Philadelphia 3, Pa.

More data? Write or use card, p 229; list D-205

Portable Rotary Pressing Unit Speeds Production

The Bates rotary press for tee shirts, athletic shirts, jockey shorts, children's panties, etc., has an easily attachable calendering unit that permits the finishing of tubular fabrics at a speed of 15 yards a minute.

Improved quality of pressing is due to the combination of low pressure steam with high surface temperature (approximately 200 C), thermostatically controlled, of the polished metal revolving cylinder.

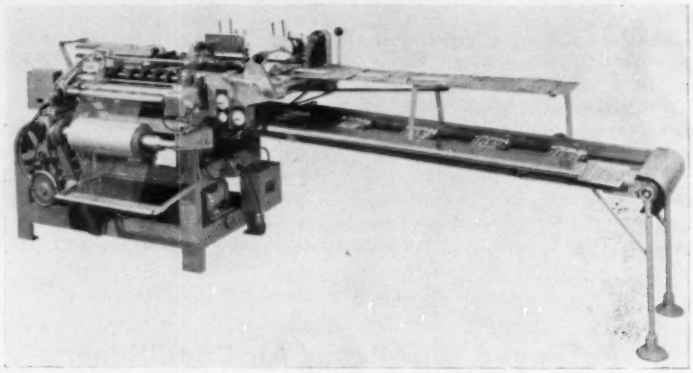
Before the garments are pressed they are subjected to treatment by water vapor, generated by an electrode boiler built into the machine and automatically fed and controlled from the machine's self-contained water tank.

The Bates unit is portable, needing only to be plugged into an outlet of the normal power supply.

Garment Finishing Machinery Corp., 18 Brattle St., Cambridge 38, Mass.

More data? Write or use card, p 229; list D-206

Wrapping Machine Specially Designed for Knit Goods



The new Hayssen textile wrapping machine, especially constructed for products such as men's briefs, underwear, hosiery, etc., features simplicity of design.

The top ejector mechanism is hinged for easy accessibility to the entire top of the machine for cleaning, repairing or adjustments, making every moving part of the machine fully accessible and easy to get to.

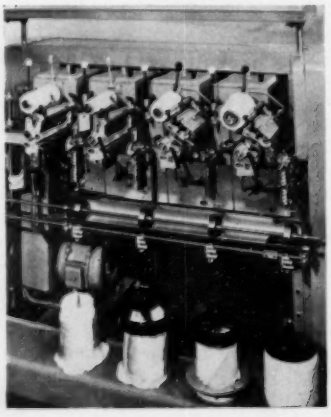
Equipped for handling all types of wrapping materials, such as heat-sealing cellophane, polyethylene, Pliofilm, Vitafilm, and all the films of this type, the machine is adjustable and versatile for many different sizes of packages and is fully automatic. It is available with electronic control for registering printed design on the package, assuring each package having the printed design in exact position and where it should be for the necessary eye-appeal.

A special tight and loose wrap attachment is provided for wrapping the package as tight as desired, and a positive seal on the bottoms and ends. The intake conveyor is especially designed for easy loading.

Hayssen Mfg. Co., Sheboygan, Wis.

More data? Write or use card, p 229; list D-207

High Production Precision Winder Has Tapered Soft Winding Roller



The Schweiter "Penta" wind which eliminates sloughing off and snarls, soft packages, uniform density, constant yarn speed, constant tension, and uniform moisture content are principal advantages to be derived from the new Schweiter "Monofil-Coner" precision cross winder for throwsters and the hosiery trade.

Designed to wind even the finest yarns of nylon, Orlon, Dacron, etc., the Type KEK-PN machine produces a pineapple-shaped bobbin that weighs over 18 oz. Initial winding length is 6 inches.

A tapered soft winding roller is utilized on the machine so that with a definite bobbin diameter the cir-

cumferential speeds correspond over the whole length of the roller, while with a smaller or larger diameter the differences in speed are insignificant.

The excellent results obtained with the "Penta" wind previously mentioned are attributed to the fact that the winding of the yarn on the bobbins is open, the reversing points being staggered according to regulation.

American Schweiter Co., 22 Ashmont Ave., Whitinsville, Mass.

More data? Write ◂ or use card, p 229; list D-208

Transparent Feet for Sewing Machines

A sewing machine operator can easily see what her machine is doing while it is being done, if a new transparent sewing foot is utilized.

Made of a transparent plastic material with a steel lining to strengthen it, the sewing foot is especially useful for zig-zag sewing such as that employed in button-hole work and other delicate stitching.

Jacob Jentschmann, Zurich, Badenerstrasse 577, Switzerland.

More data? Write ◂ or use card, p 229; list D-209

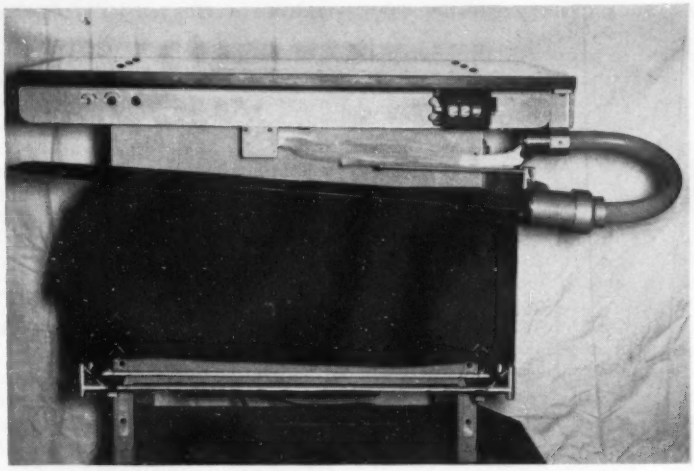
Speed Materials Handling with Automatic Doors

Prest-O-Matic door units are electrically-operated, automatic doors, their primary function being to speed up fork lift truck traffic and reduce to the minimum heat loss and interchange of atmosphere. In a knitting mill, these units can be used in any inter-department doorway or on loading platforms and in doorways to sections where control of temperature and/or humidity is important.

The operation or control of a Prest-O-Matic unit is in accordance with the owner's selection or individual requirements. The most common type of control is by approach pull cord switches. Here, the truck operator approaches the door, pulls a cord, the door opens before him; he passes through, pulls another cord, and the door closes behind him. This simple procedure has resulted in savings of up to 80% in the time required for the passage of trucks through such a doorway.

Clark Door Co., Inc., 515 Hunterdon St., Newark 8, N. J.

More data? Write ◂ or use card, p 229; list D-210



Soto pneumatic hosiery inspection machine.

More Production with Pneumatic Inspection Machine for Seamless Hosiery

A 30% increase in production over the conventional flat boards on trimming and inspection of seamless hose should be provided by the Sotco pneumatic inspection machine.

The non-expansible form has a tube down the center. The stocking is placed on the form, clipped, and inspected; then it is given a slight start by hand and sucked down through the form by a positive vacuum displaced pump into the fingers of the stacking attachment. The fingers grip the toe of the stocking and lay it in the tray or container.

The machine counts stockings in dozens and fractions thereof, and the green light on the left flashes on at the completion of a dozen pair.

Little space is required for the completely self-contained machine, the top being 30" x 48". Operation is exceedingly simple, and it is easy to maintain. 110-volt, 60 cycle, single phase current operates the equipment.

Southern Textile Machinery Co., Inc., Paducah, Ky.

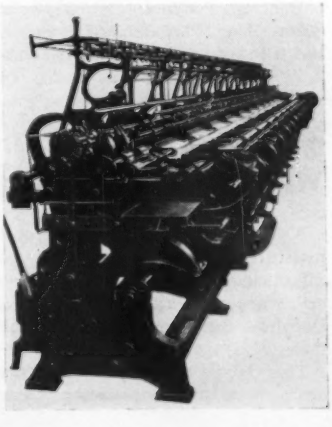
More data? Write ◂ or use card, p 229; list D-211

For Quality F-F Sweater Knitting at Low Cost

The design features of today's Golaski full-fashioned sweater machine have been developed and refined over the past decade to produce high quality knitting at low cost.

Automatic widening, narrowing, loose course and stop motions are controlled by buttons on a pattern chain placed accessibly at the front of the machine. Styles and patterns are changed in from five to 15 minutes simply by changing the pattern chain. The machine automatically progresses through the widening and narrowing cycles without stopping, automatically putting in the loose course and stopping when the garment is complete.

The only exception to the automation of this operation occurs when the widening step is completed and the operator, while the machine is running, racks in 8 or 10 needles depending on the design and sets the controls from widening to narrowing. Where eight or more machines are employed, and the additional cost of fully automatic operation would be justified, the machine can be modi-



fied for completely automatic control.

Design features include adjustable coulier motion to permit re-centering of the coulier motion stroke, provisions for all-sinker operation, and for double needle narrowing and single needle widening. The machine is equipped with a course counting attachment and has calibrated scales to indicate positions of the narrowing fingers and carriers throughout the entire knitting operation.

Each knitting head has four fashioning fingers — two for outside selvages and two-for V-neck selvages. An automatic V-neck attachment is provided as standard equipment. Machine utilizes spring-bearded needles which are set in trick slots and are individually replaceable.

An exclusive feature of the machine is that fashioning-in and widening are initiated by single-knob controls at each end. It cannot rack in and rack out at the same time, protecting against needle breakage or other serious damage.

A striping attachment is available for the machine which can knit four colors across the full width of the field and produce a multi-color stripe as thin as one course. It can also knit one-color striping as thin as a single course.

A dual purpose machine can also be obtained which knits either sweater bodies or sleeves and can easily be changed from one to the other.

Widening or fill-in points may be built into the machine to permit fashioning marks to be put into the garments while both widening and narrowing the fabric. Machines may also be built to specification to incorporate various sizes and numbers of knitting heads and special gauges.

Recommended installation for the average plant consists of two body knitting machines and one sleever. Two 10-section body machines and one 16-section sleever will produce about 25 dozen bodies and long sleeves per eight-hour day.

Bearing Products Co., 3339 Lancaster Ave., Philadelphia 4, Pa.

More data? Write ◂ or use card, p 229; list D-212

Condition Yarn at Winder, Cut Handling

Now it is possible to control the moisture content of yarns by conditioning on winders, doublers, twisters, warpers, etc., by the Yarco all-stainless steel conditioning installation.

This labor saving device permits uniform moisture application to every inch of yarn. The moisture is "locked-in" and, consequently, long "staying-in" is assured.

Further handling of yarns after winding is unnecessary — no storing in conditioning rooms, no steaming.

This equipment promotes excellent lubrication, fast drying to cut waiting time, elimination of static charges, perfect twist-setting, homogeneous waxing; and counteracts sloughing-off, bleeding and discoloration, formation of mildew and rust, re-evaporation of moisture, moth damage.

Sizing, tinting, and random dyeing can also be occomplished with the apparatus.

Kearny Mfg. Co., Kearny, N. J.

More data? Write ◂ or use card, p 229; list D-213

Sewing Machine Table Offers Higher Operator Efficiency

The "E-Z-Flo" stand for sewing machines features legs shaped like the letter "J," thereby eliminating the front portion of the leg and allowing far more operator freedom as well as reducing required aisle space.

Work aids can be moved in partially under the table top, giving the operator more efficiency of movement.

This stand is available with the new plastic Duratop in green or natural maple color.

American Safety Table Co., Inc., Reading, Pa.

More data? Write ◂ or use card, p 229; list D-214

Hand Knitter for Low-Cost Experimenting

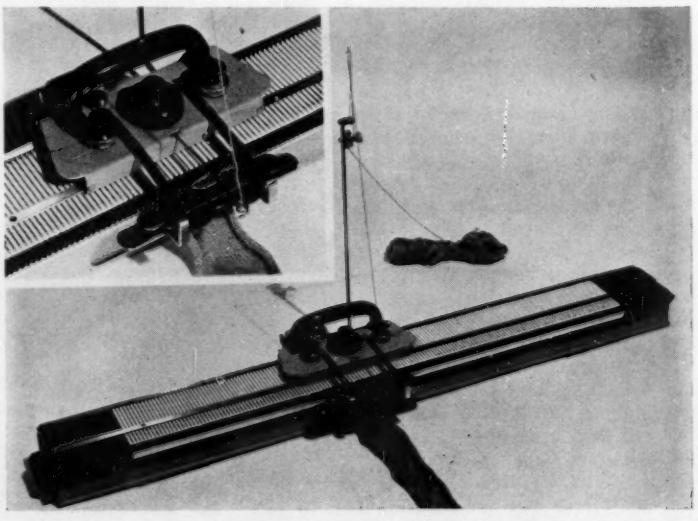
A fully automatic and light-weight hand knitting machine offers knit goods manufacturers a low-cost instrument for experimental fabric design, as well as for the manufacture of swatches and samples.

Weighing only 12½ pounds and capable of producing 10,000 knitting stitches per minute, the machine, called the Familia "Auto-Knit," permits an average-skilled operator to produce a sweater in about one hour or a complete dress in about six hours. Garments produced by the machine have a hand-knit finish.

All knitting yarns—wool, cotton, rayon, nylon, jumbo yarn, straw, angora, mohair, boucle, lastex, lace; even metallic yarns and soft ribbons—may be used to produce fabrics of an indefinite variety.

Among several exclusive features are an automatic yarn guide which feeds thread mechanically to the 161 needles which are activated by a specially designed traveling carriage. The carriage automatically regulates needle operation in four distinct positions, permitting wide diversification of stitch.

The needles ride in a grooved, segmented bed, individually numbered on a scale that permits the knitter at a glance to measure the fabric size. (Sizes range up to 161 stitches measuring 33 inches in width.) Thread



tension is controlled by an automatic dial which eliminates human error in governing fabric elasticity. An automatic row counter continuously registers the number of rows knit. In the event of knitting error, the fabric may be unpicked without undoing more than a single row of knitting.

Norca Machinery Corp., Textile Products Div., Empire State Bldg., 350 Fifth Ave., New York 1, N. Y.

More data? Write ◂ or use card, p 229; list D-215

Save Time Loading and Unloading Knit Goods

For sorting wet or dry goods from one truck into various trucks as to classification, loading kiers and tanks, unloading knitting machines, cans, and piles, and conveying goods in the string from floor to floor, the Utica extractor loader and unloader was developed.

It eliminates distortion, twist, extractor wrinkles, chafe marks, lengthwise tension, and dirt.

Head of the device swings 360 degrees on ball bearings and locks in any position; motor integral with drive, easily attached; drive runs in oil; sealed ball bearings; rolls easily removed; pot eye quickly adjustable; electrically waterproofed.

Pedestal mounting is available for mobility or bracket mounting for permanent use on tank, etc.

Utica Novelty & Mill Specialty Co., 2145 Dwyer Ave., Utica 2, N. Y.

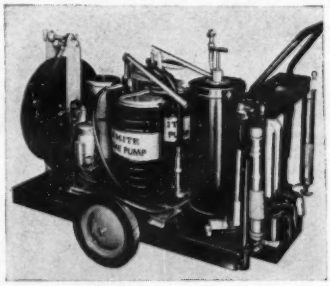
More data? Write ◂ or use card, p 229; list D-216

Complete Lubrication Department on Wheels

With the Alemite LubriKart (a rugged steel truck) as a neucleus, an orderly and efficient lubrication system can be readily installed in a textile mill. The truck carries all of the equipment the oiler requires in one complete, compact, portable unit.

In the oil room the various containers (labeled) of the LubriKart are filled from the original lubricant drums. The oiler then rolls the truck to each machine, and he is fully equipped to do his work completely and efficiently.

This method saves time, eliminates waste, prevents contamination, and prevents slipshod lubrication.



Alemite Division of Stewart-Warner Corp., 1826 Diversey Parkway, Chicago 14, Ill.

More data? Write ◂ or use card, p 229; list D-217

Device Eliminates High Twist Yarn Snarls

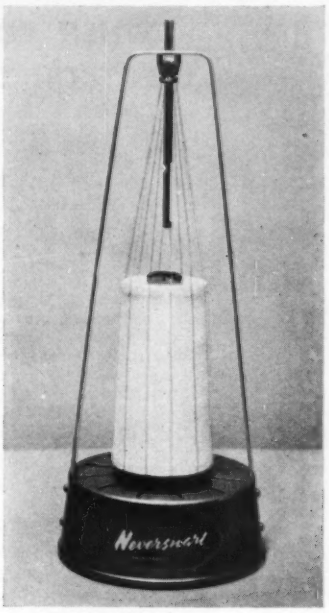
The "Neversnarl" yarn control unit controls and eliminates high twist yarn snarling at the source.

Equally successful on seamless hose and on full-fashioned machines, it is especially suitable for use with stretch type yarns. The device eliminates all other tensions except the required tension to the feed because, whatever the speed of the machine or intermittent running from cone to feed, the device keeps it under constant control. The unit should be used without conditioning boxes.

Inexpensive and simple to operate, the "Neversnarl" is said to pay for itself quickly by immediately reducing seconds, irregulars, and machine down time. A unique cost advantage, especially with expensive yarns, is that the yarn will run off to zero.

Suspending strands of the unit which hold the diminishing yarn cone are made of nylon monofilament, which will not fray nor cause yarns to cling to it. Weight of the rings is just sufficient to create the necessary tension on the single strand of yarn coming off the cone, whatever position it may be in when running. It follows that, in the knitting, a more regular control of stitch and length can be obtained without varying the tension.

Once a cone of yarn has been placed on the unit and adjusted according to simple instructions, the operator need not touch it again until time to remove the cone. Because of the unit's fully reliable automatic operation, at no time can a snarl develop to enter the machine feeders and cause seconds through holes or similar defects.



Bentley yarn control unit.

The Bentley Knitting Machinery Organization, Inc., 31 Canal Street, Providence 2, R. I.

More data? Write ◂ or use card, p 229; list D-218

Cashmere-Like Acrylic Yarn for Sportswear

A method of processing acrylic fibers such as Orlon and Acrilan into yarns of "unparalleled softness and beauty" for use in sweaters and other sportswear has been reported.

The process, which involves the stretching of the acrylic filament under high temperatures and the breaking of the filaments into spinnable form, produces a fiber described as cashmere-like in its softness. The blending of the fiber in this form with fiber which has been further treated under high-pressure steam produces "bulkness and loftiness which are unique in synthetic knitting yarns." The sweaters made from this product are claimed to have unusual wearing, washing and quick-drying characteristics, and to retain their shape remarkably.

The new yarns have been introduced to the trade under the names "Templon" and "Alana."

Templon Spinning Mills, Mooresville, N. C.

More data? Write ◂ or use card, p 229; list D-219

WHEN YOU NEED ELECTRONIC TUBES . . .

WE GOT 'EM!

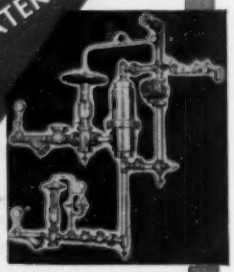
If an electronic tube goes bad in your mill it means down machinery and lost money. When this happens, call SPECIALTY. We can supply the tube you need when you need it. . . and we mean *fast!*

DISTRIBUTORS OF:

Sylvania
National Electronics
Raytheon
Eimac
RCA
Hytron
Amperex
Tung-Sol
General Electric

SPECIALTY DISTRIBUTING CO.
INCORPORATED
425 PEACHTREE ST., N.E., ATLANTA, GA.
PHONE ELGIN 5815 TWX AT281

Insist on **Pick** INSTANTANEOUS HOT WATER HEATERS



SAVES MONEY IN ALL TEXTILE WET PROCESSING

IN DAILY USE at . . .

Bates Mfg. Co.
Exeter Mfg. Co.
Pepperell Mfg. Co.
Fieldcrest Mills
Dan River Mills
Pendelton Woolen Mills
and many others.

Write Dept. TI354 for booklet on how Pick Heaters cut costs of hot water. No Obligation.

PICK GIVES YOU MAXIMUM EFFICIENCY

★ *Water Is Heated INSTANTLY* by steam injection. Fuel savings are substantial because there is no waste — water is heated only as used.
★ *Pick Heaters Maintain Continuous Flow* at preset temperature for bleaching, dyeing, scouring, etc.
★ *Safe, Quiet Operation.* Exclusive "Pressurizer Piston" assures maximum safety and eliminates hammer, noise and vibration on continuous or "start and stop" loads.
★ *No Storage Tanks Required.* Pick Heaters are compact — can be installed in corners, on walls or overhead. Saves valuable floor space.
★ *Many Other Cost-Reducing Advantages.* Maintenance cost is remarkably low because Pick Heaters can be cleaned in a matter of minutes. Installation is simple and inexpensive . . . only ordinary pipe connections are required.

PICK MANUFACTURING CO.
WEST BEND, WISCONSIN

The New

HEANIUM®

DROP WIRE GUIDE

- ALLOWS COMPLETE FREEDOM FROM OBSTRUCTION IN LOADING.
- NO BROKEN FILAMENTS DUE TO LOADING.
- NO WIRE ON LOADING SIDE.

*Patent Pending

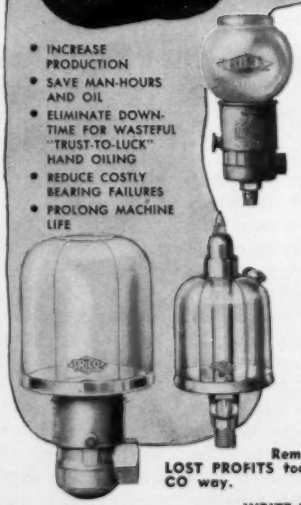
Southern Representative
Ralph Gossett & Company
Greenville, So. Carolina

New England Representative
American Supply Co.
Central Falls, R. I.

HEANIUM — *the best guide to lower costs.*
HEANY INDUSTRIAL CERAMIC CORP. New Haven 3, Conn.

MORE PRODUCTION + MAN-HOUR and OIL SAVINGS

WITH LOW COST
TRICO
AUTOMATIC OILERS



- INCREASE PRODUCTION
- SAVE MAN-HOURS AND OIL
- ELIMINATE DOWN-TIME FOR WASTEFUL "TRUST-TO-LUCK" HAND OILING
- REDUCE COSTLY BEARING FAILURES
- PROLONG MACHINE LIFE

You can EASILY eliminate costly, daily hand-oiling by the simple application of TRICO Oilers and SAVE THEIR LOW COST MANY TIMES OVER . . . Don't let these "hidden" costs of "trust-to-luck" hand oiling take money from you:—

- Cost of Labor to Apply
- Frequency of Application
- Lost Production Time
- Costly Power Loss Due to Excessive Belt Pull
- Premature Wear and Parts Replacement
- Shortened Equipment Life
- Fire & Accident Hazards

Remember, LOST production means LOST PROFITS too. Lubricate the automatic TRICO way.

WRITE FOR FREE CATALOG

TRICO FUSE MFG. CO. MILWAUKEE, WIS.

Equipment Briefs

The "Woodruff Syphon Jet" **vacuum cleaning system** is a multi-purpose non-electric cleaner for heavy duty use. Convenient and simple to operate, it has no moving parts to wear or malfunction. Utilizing compressed air from mill supply lines, the device converts the air stream into a powerful suction that is both thorough and fast acting.

Wilson Engineering Corp., 122 S. Michigan Ave., Chicago, Ill.

More data? Write or use card, p 229; list D-301

Dacro-Dye is a newly developed **carrier for the dyeing of Dacron** with dispersed type dyestuff. Free-flowing, self-emulsifying, high shelf-life, highly efficient, economical. Toxic effects are at minimum. Yields high color values and gives fuller and more even shades.

Metro-Atlantic, Centredale, R. I.

More data? Write or use card, p 229; list D-302

An **overload protective coupling** called Tork-O-Stat, whose use safeguards against costly breakdowns of machines such as packaging equipment, conveyors, mixers, etc., is used between any drive shaft and a driven shaft, giving positive low cost overload protection against overloads and sudden jams. Can be close-coupled, easily installed, small in size, light weight, needs no lubrication, is tamperproof, needs no safety guard.

Machine Accessories, 6 East Franklin Ave., Minneapolis 4, Minn.

More data? Write or use card, p 229; list D-303

Across-the-line starting as well as overload protection for fractional horsepower motors driving small machine tools, fans, blowers, etc., is provided by a **new manual starter** designated 9101 motor switch. Contacts cannot be "teased" or stalled between open and closed. Snap-action, twin-break, silver contacts reduce arcing and provide increased contact life.

Cutler-Hammer, Inc., Milwaukee, Wis.

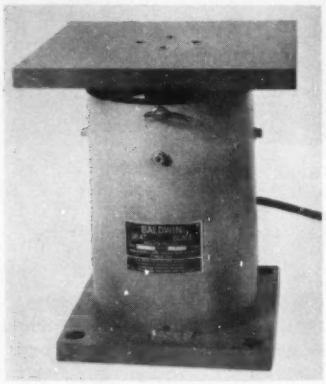
More data? Write or use card, p 229; list D-304

A **five-bank digital cycling counter,** Model N-655, suitable for counting events, measuring frequencies, determining rpm, and other similar basic measurement applications, makes as many as 100,000 counts per second. Accessory device permits presetting of one or more counts, thus it can be used as a control device in which frequency or speed may be controlled to very close limits by presetting an upper and lower limit. Output may be recorded on direct writing oscillograph.

Brush Electronics Co., 3405 Perkins Ave., Cleveland 14, Ohio.

More data? Write or use card, p 229; list D-305

New Baldwin SR-4 **electrical platform scales** of 500 lb capacity permit remote measurement of weight. Scale is about 11½" high and has a 10" square removable platform for



use in a small pit at floor level. Indicators, recorders, and control equipment may be used with the device.

Baldwin - Lima - Hamilton Corp., Philadelphia 42, Pa.

More data? Write or use card, p 229; list D-306

Padding acetate fabrics in the grey without detergents or penetrants is possible with a **new series of pad** colors which completely eleminate shading and tail-off. Water-soluble, the pad colors are ideal for use on acetates and nylons in either pad hot water or pad steam systems.

Pad Dye Corp., 65 Crosby Place, Paterson, N. J.

More data? Write or use card, p 229; list D-307

For controlling liquid levels in open storage tanks, process tanks, spray ponds, cooling tower basins, etc., a new float type valve has been developed. Called the No. 1620 series float valve, it is a sturdily constructed direct-acting control.

Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Box 400, Knoxville, Tenn.

More data? Write or use card, p 229; list D-308

Where space limitations prevent the use of the standard "Takk" static control equipment and where static problems are less severe and processing speeds lower than those requiring standard high powered equipment, a new Model 100 "Takk" **special static control system** can be utilized. Stainless steel emitters and target rods are used, along with a tough elastic material that is highly resistant to both mechanical and electrical shock. Static eliminator bars available in multiples of 4" up to any length desired. Installation is simple.

The Hewson Co., 443 Broad St., Newark 2, N. J.

More data? Write or use card, p 229; list D-309

The Rainbow Trans-Leaf Coder **automatically imprints cellophane,** glassine, waxed paper, foil, tissue, and similar wrappings at the packaging point. The unit, which is synchronized with the packaging machine speed, gives approximately 20 to 40 sq in. of imprints for one penny. Easy and economical to install and maintain, the device does not require an operator.

Industrial Marking Equipment Co., 454 Baltic St., Brooklyn 17, N. Y.

More data? Write or use card, p 229; list D-310

An Underwriters Laboratories approved **storage battery designed specifically for emergency lighting** should have from eight to twelve years of useful life. Designated the 3-COE-7 Tytex, it requires water only once or twice a year under normal circumstances. State of charge is indicated by colored pilot balls floating in a vertical channel molded into one corner of the container.

Exide Industrial Div. of The Electric Storage Battery Co., Box 8109, Philadelphia 1, Pa.

More data? Write or use card, p 229; list D-311

Pennsylvania Class ATH horizontal, double-acting, heavy-duty, water-cooled **air compressors feature an air cylinder in three sections:** fronthead, jacket, and backhead. It's easy to inspect bore and clean water passages. Cooling efficiency is higher and less water is required to maintain approved temperatures; less horsepower is needed to operate machine because improvement in heat transfer permits operation at lower temperature.

Pennsylvania Pump and Compressor Co., Easton, Pa.

More data? Write or use card, p 229; list D-312

Now available with increased cutting range is the new Model 400 **dial saw which will cut any size hole from 1⅛" to 3½" dia.** in metals, wood, plastics, etc. Three blades adjust simultaneously to size desired by rotating the dial which is calibrated in pipe and conduit sizes. Smaller fractions of an inch may

easily be set by measurement.

Robertson and Ruth, Box 534, Elmhurst, Ill.

More data? Write or use card, p 229; list D-313

Especially recommended for rugged and corrosive service on pump shafts and valve stems is a new **Teflon yarn packing** which runs much cooler than other types. Can be impregnated with a lubricant if required.

Crane Packing Co., 1800 Cuyler Ave., Chicago 13, Ill.

More data? Write or use card, p 229; list D-314

A new resin named "Syncap ON" is specifically designed for application on nylon **for production of durable, stiff finishes.** Taffetized or parchmentized effects are provided. Unusual characteristics are imparted to marquisettes and sheers. Maximum flame resistance is insured.

Crown Chemical Corp., Providence, R. I.

More data? Write or use card, p 229; list D-315

Two new **pressure-sensitive film tapes** — "Scotch" brand Nos. 850 and 852 — are especially suited for splicing rolls of textiles, etc. Provide excellent resistance to acids, alkalis, ketones, hydrocarbons, esters, and other common solvents; also to all sorts of weather conditions. Tensile strength, 25 lb per inch of tape width, 100% elongation, and 40 oz adhesion per inch of width. Polished silver appearance. No. 852 is printable and supplied with special polyethylene-coated paper liner.

Minnesota Mining and Manufacturing Co., St. Paul, Minn.

More data? Write or use card, p 229; list D-316

Used with special Pennsalt high bond strength primers to insure adhesion, Thick-Coat — a new resin coating product — provides a **durable protective coating** for new or corroded metal, concrete and wood equipment, and structures or surfaces exposed to fumes, corrosive chemical laden atmospheres or spillage of corrosive chemicals of acid, alkaline or neutral nature. Applied like regular maintenance paint by brush, roller or spray as it comes from can.

Pennsylvania Salt Mfg. Co., 1000 Widener Bldg., Philadelphia 7, Pa

More data? Write or use card, p 229; list D-317

Tractor operators are provided maximum comfort with a new **all-weather cab** which is designed specifically for the new "Banty" Model A-460 gasoline tractor but can also be supplied for mounting on present tractors. Half-doors and canvas roll-down curtains completely

enclose cab. Hot water heater and electric wind shield wiper and defroster system available.

Mercury Mfg. Co., 4044 S. Halsted St., Chicago, Ill.

More data? Write or use card, p 229; list D-318

A new **pump for air conditioning and general purpose applications** is a double-suction unit now being offered in five sizes ranging from 3 by 2½", 1750 rpm, at 150-ft head to 6 by 6" at 100-ft head. Designated Type KS, it features heavy duty construction, horizontally split casin, ball bearings, coupling driven.

Allis-Chalmers Mfg. Co., Milwaukee 1, Wis.

More data? Write or use card, p 229; list D-319

A new **anionic softener for cotton,** Dexene 77, produces no yellowing of the treated goods, does not affect light-fastness of dyes, facilitates high-speed sewing and cutting, and produces an excellent hand.

Dexter Chemical Corp., New York 59, N. Y.

More data? Write or use card, p 229; list D-320

Industrial fans formerly produced only as components of Dracco dust control systems are now available and provide dependable, trouble-free service in many operations involving gases or air-entrained materials such as clean or dirty air, fumes, dust, refuse, shavings, or stringy material. Features: easy removal of wheel from housing for cleaning or maintenance; careful static and dynamic balancing of wheel; heavy-duty, self-aligning pillow block bearings permitting placing of the unit on a side wall or ceiling.

Dracco Corp., Harvard Ave., at East 116th St., Cleveland 5, Ohio.

More data? Write or use card, p 229; list D-321

A new, continuous-action, automatically reciprocating **air-hydraulic booster** capable of delivering an unlimited amount of high pressure fluid for the operation of hydraulic cylinders is double-acting and operates from ordinary plant compressor air input. Especially recommended for operations requiring high holding pressure without generating heat or wear and without consuming power. It is also well adapted for handling special output fluids.

Miller Fluid Power Co., 2040 N. Hawthorne Ave., Melrose Park, Ill.

More data? Write or use card, p 229; list D-322

Permanent resilience, high electrical resistance, and an almost impervious resistance to acid, oil, grease, and heat are properties of a new **floor matting designed to reduce employee fatigue and injury.** Called Neo-Sponge comfort mat, it is made by a special process of blowing millions of inert nitrogen bubbles into neoprene. Reversible.

American Floor Products Co., 4922 Wisconsin Ave., N. W., Washington 16, D. C.

More data? Write or use card, p 229; list D-323

New Books

Year Book of the Textile Institute, No. 7, 1954-55, recently published by the Institute at 10 Blackfriars St., Manchester 3, England, contains many of the features of previous issues, and new features include details of the changes in the Institute's design competitions which come into effect this year. Sources from which films on textile subjects can be obtained are listed, and addresses of more than 250 textile and allied organizations are given.

The American Society for Testing Materials 1916 Race St., Philadelphia, Pa., has just published the *Directory of Commercial and College Testing Laboratories* which lists the locations of testing laboratories equipped to undertake testing on a commercial or fee basis.

A new text book, *Mechanics for Textile Students*, by W. A. Hanton, is divided into three parts: Study of movement; Statistics; and Applications of force in causing motion. The author's aim was to point out a suitable method of approaching the subject. According to him, the contents should be supplemented by explanations from the teacher or by reference to general text books on mechanics for proof of the principles involved. Published by Textile Institute, 10 Blackfriars St., Manchester 3, England.

A LONG LIFE... AND A FAST ONE...

FOR WOOL AND NYLON

SUPRALANS

for

- **unvarying reproducibility of shades**
- **good to very good light and wet fastness**
- **shorter dyeing time**

The simplicity of the neutral dyeing method of application yielding level fast shades without the aid of a leveling agent now permits wool dyers to achieve results in quality which were not possible prior to the introduction of SUPRALANS.

Better tensile strength, preservation of fibre texture, equal exhaustion properties and uniformity of shade on various types of wool are assured factors which can be assumed with SUPRALANS.

A few minutes conversation with GDC technical and sales representatives will serve to convincingly explain the exceptional dyeing characteristics of SUPRALANS.

From Research to Reality

gdc gaf

GENERAL DYESTUFF COMPANY

A SALES DIVISION OF GENERAL ANILINE & FILM CORPORATION

435 HUDSON STREET • NEW YORK 14, NEW YORK

BOSTON • CHARLOTTE • CHATTANOOGA • CHICAGO • LOS ANGELES • NEW YORK • PHILADELPHIA • PORTLAND, ORE. • PROVIDENCE • SAN FRANCISCO

The WEST POINT **AIR-DRI** Slasher

UP TO 1500 POUNDS PER HOUR

HOT AIR DRYING at its best

For WORSTED, COTTON and SYNTHETICS

REASONABLE INITIAL COST

LOW OPERATING COST

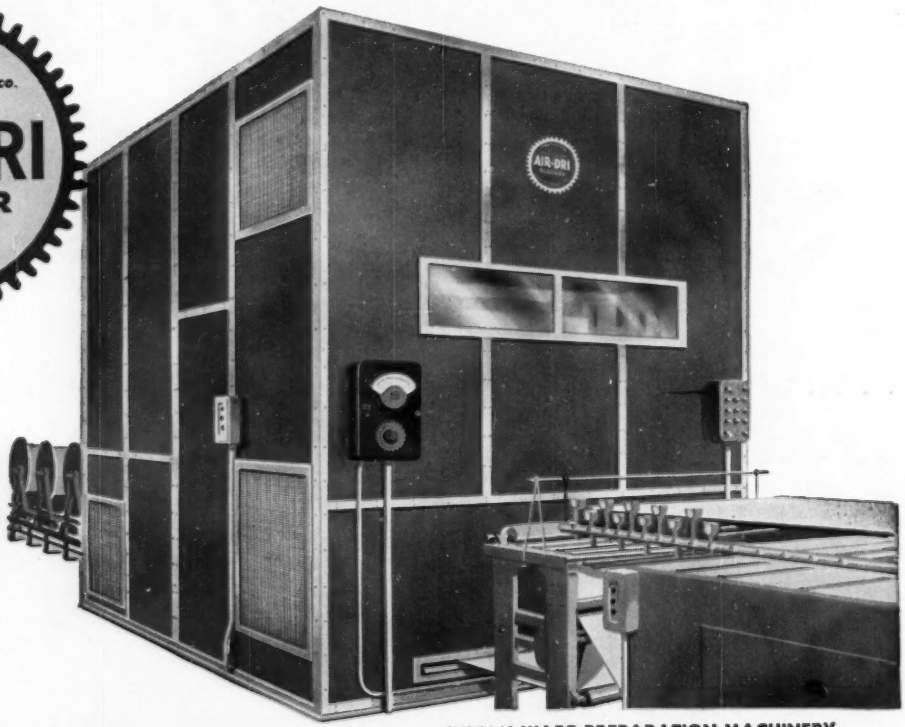
Here's a new high-production hot-air slasher, designed for natural or synthetic fibers, capable of greatly increasing production with little increase in space requirements.

With efficient new Air-Dri Slashers as replacements for out-of-date equipment, you can, in many cases, double or triple your slasher output, eliminate overtime and greatly improve warp quality.

Yarn is 40% dry by the time it reaches the first guide roll. A wet splitting device divides the yarn into layers as it enters the dryer.

We will be glad to furnish you with detailed specifications for the advance-design Air-Dri Slasher on request.

WEST POINT FOUNDRY & MACHINE CO.
AIR-DRI SLASHER
WEST POINT, GA., U.S.A.



WPF&M

WEST POINT FOUNDRY & MACHINE CO.
WEST POINT, GEORGIA

WPF&M WARP PREPARATION MACHINERY

Air-Dri Slashers
Cyl-Air Slashers
Multi-Cylinder Slashers
Callaway Sample Slashers
WPF&M Hi-Speed 4 Cylinder Slashers
Standard 2 and 3 Cylinder Slashers

SLASHER MODERNIZATION EQUIPMENT

Hi-Speed Head Ends
Additional Cylinders
Stretch Control Units
Special Width Head Ends
Multi-Motor Drives
Equi-Tension Creels
Temperature, Speed and Tension Control Devices
Size Boxes, Size Kettles, and Size pumps

CORDUROY CUTTING MACHINES AND BRUSHERS

HELPFUL BOOKLETS FREE!

On this and the following pages is an excellent library of free textile literature. Select the books which will be helpful to you and list their numbers on the coupon.

Mail to TEXTILE INDUSTRIES

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

4-1 Lubrication of Electric Motors. Illustrated bulletin on lubricating and cleaning ball and roller bearings on electric motors. Write New York & New Jersey Lubricant Company, 292 Madison Ave., New York 17, N. Y.

4-2 Penetrating Wood Finish. Bulletin gives applications, uses and application specifications of floor seals for textiles. Write E. I. du Pont de Nemours & Co., Inc., Finishes Division, Wilmington, Delaware.

4-3 H-D 14-Head and H-D 12-Head Twisters. Color catalogs describe these twisters, including data on creels, stop-motion and tanks. Write Haskell-Dawes Machine Co., 2231 E. Ontario St., Philadelphia 34, Pa.

4-4 "Where Did They Hit Pay Dirt?" Booklet describes how many manufacturing concerns have come South and why they found it profitable. Gives industrial advantages of the Southeast. Write Central of Georgia Railway, Industrial Development Department, 501 Rhodes Haverty Bldg., Atlanta 3, Georgia.

4-5 Industrial Chemicals. 24-page booklet listing alphabetically Harshaw industrial chemicals and applications. Write The Harshaw Chemical Company, 1945 East 97th Street, Cleveland, Ohio.

4-6 Reliance Totally-Protected A-C Motors. Booklet entitled "Check The Facts" points out 100 characteristic facts of new line of A-C Motors. Write Reliance Electric & Engineering Co., 1088 Ivanhoe Rd., Cleveland 10, Ohio.

4-7 Useful Fatty Acid Guide. Dial to determine proper specifications, composition, temperature conversions and color conversion. Free on request, write Wilson & Company, Snyder Ave. & Swanson St., Philadelphia 48, Pa.

4-8 New Concept of Engineered Winding. 12-page brochure describes combining winding machinery and winding engineering in one "package" service. Write Hobbs Manufacturing Co., 353 Salisbury St., Worcester, Mass.

4-9 Rust Prevention. 24-page general catalog tells industry how to stop rust by surfact preparation. Write Rust-Oleum Corporation, 2799 Oakton St., Evanston, Illinois.

4-10 Boiler Refractories. Bulletin discusses the importance of selecting the proper refractory materials and the basic requirements one must meet to avoid the chief causes of refractory failure. Write Babcock & Wilcox Co., 161 East 42nd St., New York 17, N. Y.

4-11 Foamglas. Illustrated brochure features information on how the use of Foamglas cellular glass insulation solved the severe insulating problems of leading users. Write Pittsburgh Corning Corp., One Gateway Center, Pittsburgh 22, Pa.

4-12 Check Straps. Pamphlet describes the many advantages and the double-life performance of the Nuform Type D Check Straps. Write Slip-Not Belting Corp., Kingsport, Tennessee.

4-13 Warping, Slashing, Weaving Arnel Yarns. 8-page booklet preliminary information on Arnel Triacetate Yarns. Write Celanese Corp. of America, Textile Division, Box 1414, Charlotte, N. C.

Handy Return Card ▶

- **List Booklets You Want By Number**
- **Request More Information On New Equipment Items**
- **Inquire Further About Advertisements**

TEAR OUT AND MAIL TODAY! NO POSTAGE NECESSARY.

Please be sure to fill in your Firm's Name and your position on the Coupon. This service cannot be extended to you unless this information is furnished.

APRIL, 1955

Please send, without obligation, additional information on New Equipment and booklets described (give Key numbers) .....

.....

.....

Please send more information on advertisements (give Page numbers)

.....

.....

Name .....Position .....

Company Name .....

Address .....

City .....State .....

HELPFUL BOOKLETS FREE!

4-14 Textile Finishing Machinery. Further information concerning the Wiesner-Rapp textile finishing machinery as connected with the Textile and Chemical Industries. Helpful in discussing processing problems. Write The Wiesner-Rapp Co., Inc., 1603 Seneca St., Buffalo 10, N. Y.

4-15 "The Fairbanks Valve Comparison Chart." New reference manual important in specification, ordering, and using of bronze and iron-body valves. Write The Fairbanks Company, 393 Lafayette Street, New York 3, N. Y.

4-16 Hosiery Inspection Machines. Booklet describes complete line of full-fashioned and seamless inspection machines; also shows how machines greatly increase production and amortise rapidly. Write Southern Textile Machinery Co., 2nd and Norton Streets, Paducah, Kentucky.

4-17 Waldron Multi-Coater. Bulletin describes the Waldron Multi-Coater, a newly developed coating, printing and embossing unit Write John Waldron Corporation, P. O. Box 791, New Brunswick, New Jersey.

4-18 Synthane Textile Parts. Folder on laminated bobbins, pirns, headless package tubes, hosiery turning and examining forms, sizing bobbins, etc. Write to Synthane Corp., 9 River Road, Oaks, Pa.

4-19 Catalyst AC-6. Technical bulletin on curing resin-finished textiles with 8 oz. sample bottle. Write Monsanto Chemical Co., Plastics Div., Dept. TI, Springfield, Mass.

4-20 Complete Napthol Manual. Practical working handbook, 110 pages, on textile dyeing and printing applications of Napthols. Write on company letterhead to Pfister Chemical Works, Box 326, Ridgefield, N. J.

4-21 Chemical Catalog. Features detergents, wetting agents, emulsifiers, brighteners, sequestrants, dyeing assistants with chemical composition, properties and application. Write Antara Chemicals Div., General Aniline & Film Corp., 435 Hudson St., New York 14, N. Y.

4-22 Stop Corrosion. Details on speed Rex paint for metal wood and concrete maintenance solving condensation problems. Write to Truscon Laboratories, Box 69, Milwaukee Junction, P. O. Dept. T, Detroit 11, Mich.

4-23 Spindle Oiling Machine. Information available on new Spindle Oiling Machine. Features include filter system to clean oil for reuse; smaller size for narrow aisles. Write Wicaco Machine Corp., 4800 Stenton Ave., Wayne Junction, Philadelphia 44, Pa.

4-24 Winding Webs and Strands. 12-page brochure describes unique concept of combining winding machinery and winding engineering in one "package" service. Illustrates and describes typical installations. Write Hobbs Mfg. Co., 353 Salisbury St., Worcester, Mass.

4-25 Color and Chemical Analysis. Folder containing application chart on Leucophor Optical Brighteners shows how optical brighteners can simplify production and improve results. Write Sandoz Chemical Works, Inc., 51 Van Dam St., N. Y. C., N. Y.

4-26 End-To-End Flooring. Booklet illustrates new "Holt" flooring for industrial use. Includes complete design and construction features, with complete design and construction features, with complete specifications. Write Holt Hardware Co., Oconto, Wisconsin.

4-27 Ceiling Light Diffusers. Catalog in color describes complete lines of square, rectangular and linear ceiling diffusers. Ordering information and installation methods included. Write Barber-Colman Co., Rockford, Illinois.

Postage Will Be Paid by Addressee

No Postage Stamp Necessary If Mailed in the United States

Handy Return Card

USE THIS OPPORTUNITY TO INFORM YOURSELF OF CURRENTLY AVAILABLE LITERATURE DEALING WITH MACHINERY, EQUIPMENT AND SUPPLIES FOR TEXTILE MILLS, FILL OUT THE ATTACHED CARD TODAY.

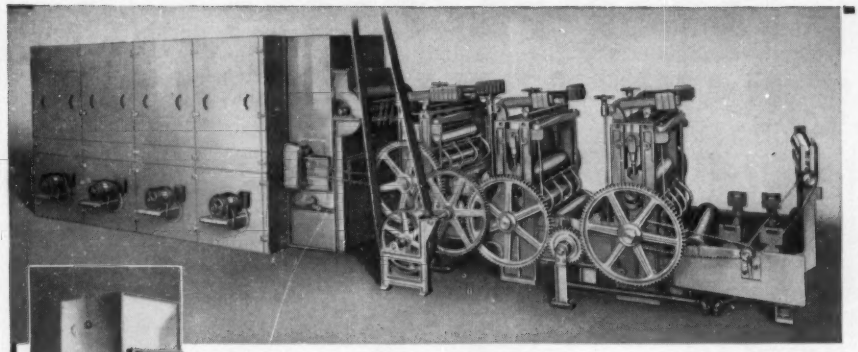
BUSINESS REPLY CARD

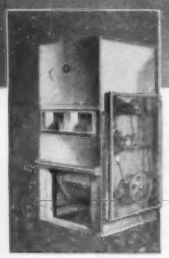
FIRST CLASS PERMIT NO. 582, SEC. 34.9, P. L. & R., ATLANTA, GA.

TEXTILE INDUSTRIES

806 PEACHTREE ST., N. E.

ATLANTA 5, GA.





Conveniently located inspection doors at doffer end.

SARGENT'S

Flexible • Modern • Efficient

BACKWASHER and BACKWASH DRYER

LARGEST MANUFACTURERS OF STOCK DRYING AND WOOL WASHING EQUIPMENT IN AMERICA

☆ **Designed to Meet Varying Production Requirements**

BACKWASHER—Available with one to five bowls. 44" wide bowls give increased liquor capacity. SARGENT'S rearrangement of top squeeze roll levers allows easy accessibility for operator; permits more than double usual number of ends to run through machine. Convenient working space provided by development of pneumatic loading for squeeze rolls, eliminates weights, rods, springs and adjusting wheels.

BACKWASH DRYER—Available with 29" or 44" aprons. Wire cloth or perforated plate aprons assure softer feel, better color, greater fibre strength. Warm air circulated by motor driven pressure-type fans passes alternately through extended surface heating coils and fibres. From 14 to 60 ends dried at one time. Available in production capacity of 100 to 600 pounds per hour, with 3, 4, 5 or 7 circulating fans.

Write for Complete Details

SINCE 1852

C. G. SARGENT'S SONS CORPORATION

Graniteville, Massachusetts, U.S.A.

REPRESENTATIVES

P. E. WASSON, 519 Murdock Rd., Philadelphia 19, Pa.
A. L. MERRIFIELD, 215 Grove Ave., Cincinnati 13, Ohio
W. S. ANDERSON, Carolina Specialty Co., Charlotte, N. C.
HUGH WILLIAMS & CO., 47 Colborne St., Toronto 1, Canada

HELPFUL BOOKLETS FREE!

GENERAL, ECONOMICAL MANAGEMENT . . .

17. A FAIR DAY'S PAY AND IN RETURN A FAIR DAY'S WORK—8-page booklet outlining the services offered to industry for the proper utilization of labor, material and equipment, and the resulting advantages for both labor and management.—AMERICAN ASSOCIATED CONSULTANTS, INC., 250 Park Ave., New York, N. Y.

19. INDUSTRIAL BUILDING — A 32-page booklet entitled "U.S.S. 12, U.S.S. 17 Stainless Steel Walls and Roofs for Industrial Buildings," is now available for distribution. This publication illustrates the use of type 410 and type 430 Stainless Steel Sheets in the construction of industrial and semi-industrial buildings. — U. S. STEEL CO., 525 William Penn Pl., Pittsburgh 30, Pa.

22. THE WONALANCET WAY — Is the title of an editorial booklet published five times a year and deals with current problems which appear worthwhile at the time they are written. — WONALANCET COMPANY, 128 Burke St., Nashua, N. H.

100. MOTION CONTROL WITH SILENTBLOC—Brochure describes advantages of General Tire Company's Silentbloc method of protecting delicate instruments, reducing machine vibration, etc.—THE GENERAL TIRE CO., Industrial Products Div., Akron, Ohio.

PLANT & PLANT MAINTENANCE . . .

102. "TANK TALK"—Sixteen-page booklet of illustrations showing various types of elevated steel tanks constructed and erected by manufacturers as well as stand pipes, reservoirs, storage and high pressure vessels, cylinders, along with helpful technical data. Also a list of what a few of the cotton mills, etc., said.—R. D. COLE MANUFACTURING COMPANY, Newnan, Ga.

103. HUMIDIFICATION, EVAPORATIVE COOLING—Bulletins available displaying AMCO automatic self-cleaning atomizers, controls, and evaporative cooling equipment.—AMERICAN MOISTENING CO., 260 W. Exchange St., Providence, R. I.

105. CASTERS AND WHEELS — Catalog gives complete descriptions on full line of industrial casters and wheels. Features patented "LOCKWELD Steel Casters Without A Kingpin" both Single and Double Ball Race.—THE FAIRBANKS CO., 393 Lafayette St., New York 3, N. Y.

106. FINNELL COMBINATION SCRUBBER-VAC—Illustrated literature gives complete specifications and describes various methods of combination-machine-scrubbing, including method recommended for cleaning oily floors. — FINNELL SYSTEM, INC., 1300 East St., Elkhart, Indiana.

108. MAPLE FLOORING—Booklet describing finishing of Northern Hard Maple Flooring—list of M.F.M.A.-approved heavy-duty floor finishes.—MAPLE FLOORING MANUFACTURERS ASSOCIATION, Pure Oil Bldg., 35 East Wacker Dr., Chicago 1, Ill.

111. CERTIFIED CLIMATE AIRCHANGER SYSTEM—Bulletin describes Certified Climate Airchanger System as used with direct humidification for partial or complete air conditioning.—PARKS-CRAMER CO., Fitchburg, Mass.

112. HARDWOOD FLOORING — Booklet entitled "Specialist in Manufacturing of Hard Maple Flooring for Textile Plants."—CONNOR LUMBER & LAND COMPANY, P. O. Box 810, Wausau, Wisconsin.

117. CLEANING SYSTEMS — Booklet entitled "Certified Climate and Cleaning Systems" gives latest information on system. Products and uses fully discussed with two story layout of Certified Climate central station air conditioning system.—PARKS-CRAMER CO., Fitchburg, Mass., and Charlotte, N. C.

110. UNBRAKO STANDARDS — Catalogue by Standard Pressed Steel Co. describes in pictures and text the company's line of Unbrako precision threaded fasteners. Several applications of each product are indicated in line drawings to suggest hundreds of others and to stimulate the imagination of design engineers.—STANDARD PRESSED STEEL CO., Jenkintown, Pa.

113. COTTON MILL EQUIPMENT — This book traces pictorially the steps in processing raw cotton into finished cloth. It shows the equipment needed for all phases of production, as well as containing a "Useful Information" section on Power Factor Correction, Lighting Circuit Protection, etc.—WESTINGHOUSE ELECTRIC CORP., 511 Wood St., Pittsburgh 30, Pa.

127. SOLENOID VALVES — Bulletin "Y" lists sizes from 1/2 inch to 3 inches; valves for normally open or closed service; stainless steel or Jenkins disc seats; three way solenoid valves, etc.; typical installations.—THE JOHNSON CORP., Three Rivers, Mich.

131. "AIR PROCESSING"—Set of three bulletins showing real meaning of the term, where it can be used, the requirements for a successful system, etc. —J. O. ROSS ENGINEERING CORP., 444 Madison Ave., New York 22, N. Y.

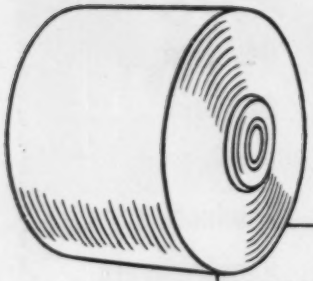
135. COLOR CONDITIONING—Booklet illustrated in color describes how Du Pont color conditioning puts color to work for you. Many ideas on safety brught out which color can aid.—E. I. DU PONT DE NEMOURS & CO., INC., Finishes Div., Wilmington 98, Delaware.

138. METAL CONVEYOR BELTS—Recent catalog describes and illustrates Ashworth's entire range of manufacture, including the new Flat Wire Belt design and application, along with their Woven Wire Constructions and Positive Drive Chain Edge belts.—ASHWORTH BROS., INC., Metal Products Div., Fall River, Mass.

146. FUNCTIONAL GLASS BLOCK DATA—Folder shows in detail daylighting function of Light-directing and Light-diffusing Functional Glass Blocks. —PITTSBURGH CORNING CORP., 307 4th Ave., Pittsburgh 22, Pa.

LARGE PACKAGES HAVE ADVANTAGES

in the steps which FOLLOW THE SPINNING

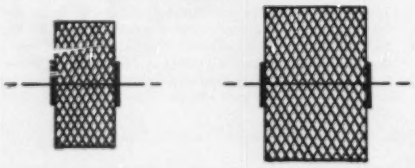


SPINNING

12" Bobbin — 3" Ring — 12 oz. Bobbin
= 1.33 Bob/lb. — 15,000 Yds.
9" Bobbin — 2" Ring — 3.85 oz. Bobbin
= 4.16 Bob/lb. — 5,000 Yds.

3 TIMES As Much Yardage On Bobbin

SPOOLING



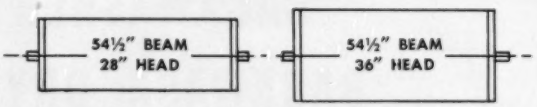
TYPE "C" CHEESE
2.38 LBS.
48,000 YDS.

TYPE "D" CHEESE
6.00 LBS.
120,000 YDS.

2.5 TIMES

AS MUCH YARDAGE PER CHEESE

WARPING



28" BEAM	36" BEAM	40" BEAM
530 LBS.	875 LBS.	1,050 LBS.
24,000 YDS.	40,000 YDS.	40,000 YDS.
445 ENDS	441 ENDS	529 ENDS
BEAMS PER CHEESE	BEAMS PER CHEESE	BEAMS PER CHEESE
TYPE "C"-2 TYPE "D"-5	TYPE "C"-1 TYPE "D"-3	TYPE "C"-1 TYPE "D"-3

SLASHING

Assuming 1,200 yds. per Loom Beam

28" BEAM	36" BEAM	40" BEAM
20 Loom Beams Per Set	33 Loom Beams Per Set	**39** Loom Beams Per Set

Average Slasher Creelings per 120-hr. Week

5.68	3.67	**3.16**

TWISTING

2.38 LB. CHEESE	6.00 LB. CHEESE
48,000 YDS. PER CHEESE	120,000 YDS. PER CHEESE

2.5 TIMES
AS MANY BOBBINS CAN BE TWISTED
PER CREELING

Note: 24s Yarn Assumed in All Comparisons

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • WARP DRAWING MACHINES

BARBER-COLMAN COMPANY

ROCKFORD • ILLINOIS • U. S. A.

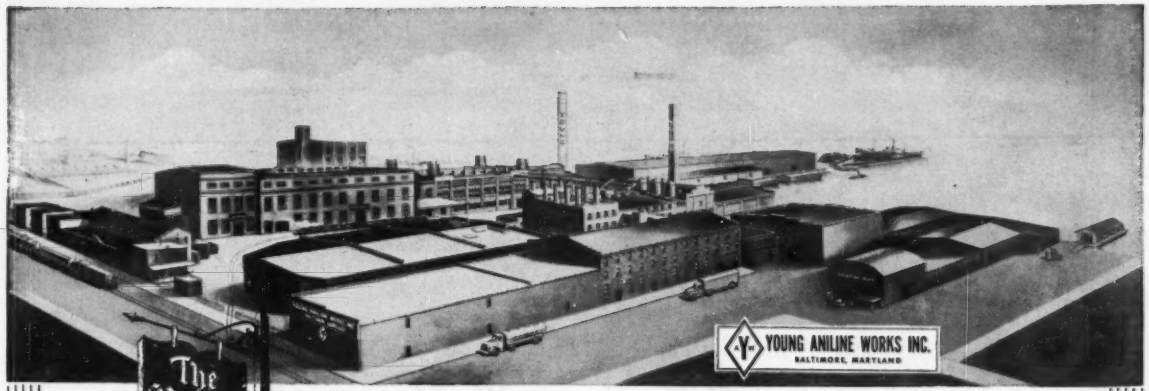
FRAMINGHAM, MASS., U. S. A. — GREENVILLE, S. C., U.S.A. — MANCHESTER, ENGLAND — MUNICH, GERMANY

INDIA
Batliboi & Company
Forbes Street, Fort
Bombay, India

MEXICO
J. Rabasa
Isabel la Catolica 45-913
Apartado 7348
Mexico D.F. Mexico

BRAZIL
Quimanil S.A. Anilinas
e Representacoes
Rua Glicerio 537/547
Caixa 5658 e 3431
Sao Paulo, Brazil

JAPAN
Nippu Trading Co., Ltd.
Toa Koshin Bldg.
3-Chome Kitahama Higashiku
Osaka, Japan



The House of Blacks

ACID BLACKS • DIRECT BLACKS
ACETATE BLACKS • LOGWOOD BLACKS
FORMALIDE BLACKS • DEVELOPED BLACKS

Consult your local dyestuff distributors for information and samples. Shipments can be made from their convenient stocks or from our Baltimore or Paterson warehouses.

YOUNG ANILINE WORKS, INC.

PATERSON OFFICE
50 E. 13th St., Paterson, N. J.

OFFICE AND FACTORY
2701-2733 Boston St., Baltimore 24, Md.

HELPFUL BOOKLETS FREE!

150. RIHCO HUMIDIFIERS AND COOLING SYSTEMS—Bulletin describes new atomizers with construction lessening air consumption in humidifier systems, evaporative cooling systems.—ALDRICH MACHINE WORKS, Greenwood, S. C.

151. INDUSTRIAL BRUSHES—Illustrated booklet of industrial brushes featuring textile usage on shears, printing machines—also flock, raising and cylinder brushes.—M. W. JENKINS SONS, INC., 444 Pompton Ave., Cedar Grove, N. J.

153. LAMINATED TEXTILE PLASTICS.—Booklet by Synthane Corporation shows variety, application, and advantages of laminated plastic parts and supplies for the textile industry.—SYNTHANE CORPORATION, Textile Division, Oaks, Penna.

161. AUTOMATIC CLEANING EQUIPMENT.—Complete booklet by American MonoRail shows working details and advantages of the Tri-Rail Cleaner, a great improvement over the original unit.—AMERICAN MONORAIL CO., 13107 Athens Ave., Cleveland 7, Ohio.

162. MODERN METHODS OF TEXTILE FLOOR MAINTENANCE—Illustrated treatise on the history of floor cleaning in textile plants and a detailed description of new methods for reducing floor cleaning costs as well as preserving textile mill floors.—G. H. TENNANT COMPANY, 2530 N. Second St., Minneapolis 11, Minn.

169. MACHINE BRUSHES — Illustrated Folder shows many types of machine brushes and describing their particular use for printing, washing, brushing, singeing, and shearing is sent free upon request.—Industrial Brush Company, Inc., Woodside Avenue, Little Falls, New Jersey.

173. BLOWERS AND EXHAUSTERS — Bulletin No. 3014-D describes types "E" and "RE" electric blowers and exhausters. Uses and full description of each with detail drawings.—BUFFALO FORGE CO., 490 Broadway, Buffalo 5, N. Y.

174. PAINT STRIPPING BOOKLET — Illustrated booklet providing helpful data on latest materials and methods for simplified stripping of paint. Methods described include: (1) steam gun; (2) hot flow-on; (3) cold spray; and (4) tank immersion.—OAKITE PRODUCTS, INC., 22 Thames St., New York 6, N. Y.

176. STOKERS AND BOILERROOM EQUIPMENT—For information on boilerroom problems, improvements and apparatus.—McBURNEY STOKER CO., 2110 Peachtree Rd., Atlanta, Georgia.

181. AIR FILTRATION—Bulletin 234 describes and illustrates the Auto-Airmat, which is the Automatic Dry-type air filter. Principle of operation, performance characteristics, construction and installation fully discussed.—AMERICAN AIR FILTER COMPANY, INC., 275 Central Ave., Louisville 8, Ky.

POWER TRANSMISSION MOTORS, BELTING, LUBRICATION . . .

201. V-BELT DRIVE CATALOG — This handy, pocket-sized catalog helps you make quick and easy selections of any Dayton V-Belt Drive from 1 to 1000 HP. Contains many concise, accurate drive tables, diagrams, and other important engineering data.—DAYTON RUBBER CO., Dayton, Ohio.

203. TREADED LEATHER BELTING—This 16-page booklet describes Houghton's line of patented, specially treaded leather belting for all types of power transmission. Booklet includes valuable engineering and maintenance section.—E. F. HOUGHTON & CO., Philadelphia, Pa.

206. LOOM MOTOR BULLETIN—The new design of this ball bearing motor is claimed to represent an advance in the design of loom motors fully discussed.—THE LOUIS ALLIS CO., 427 E. Stewart St., Milwaukee, Wisconsin.

207. TRICO OILER INSTALLATION—Twelve interesting pages of actual "on the job" photos of Trico oiler applications on nationally recognized machinery and equipment.—TRICO FUSE MFG. CO., 2948 N. 5th St., Milwaukee 12, Wisc.

208. CUTLER-HAMMER MOTOR CONTROL—Booklets describe the combination starters for the textile industry, for roving frames and spinning frames, loom switch and Cutler-Hammer Motor Control for textile cards.—CUTLER-HAMMER, 315 N. 12th St., Milwaukee, Wisconsin.

209. STEEL PULLEYS — Pictorial review of American Steel Pulleys, their manufacturing processes and some of their end uses. Textile pulleys are featured.—AMERICAN PULLEY CO., 4200 Wissahickon Ave., Philadelphia 29, Pa.

210. NEW D-C. MOTOR—Booklet describes in text, pictures and charts new Reliance Super 'T' Line D-C. Motor with Dynamic Response.—RELIANCE ELECTRIC & ENGINEERING CO., 1076 Ivanhoe Road, Cleveland 10, Ohio.

212. GATES TEXTILE ACCESSORIES — Handy pocket-size catalog BHM-7, fully illustrated, gives specifications of Gates textile accessories including pickers, lug straps, check straps, cone belts, evener belts, harness straps, take-up roll covering, and others.—THE GATES RUBBER COMPANY, 1001 Broadway, Denver 17, Colo.

218. BALL BEARINGS FOR TEXTILE MACHINERY—A 40-page catalog illustrating Fafnir Ball Bearing units for replacement or new applications in all phases of textile processing.—THE FAFNIR BEARING CO., New Britain, Conn.

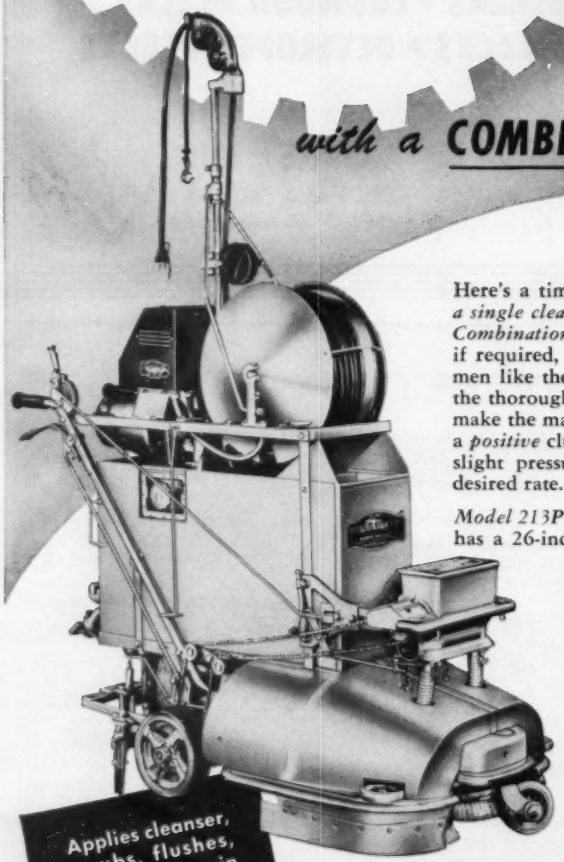
222. AUTOMATIC PRODUCTION CONTROL—Booklet by Reeves Pulley Company, shows application of many automatic processes and controls to the textile industry. Well illustrated, it contains engineering data quite useful to anyone interested.—REEVES PULLEY COMPANY, Columbus, Indiana.

227. WOOLEN AND WORSTED MILL ELECTRICAL EQUIPMENT—Booklet by Westinghouse follows processes through the mill and shows application and advantages of Westinghouse equipment.—WESTINGHOUSE ELECTRIC CORP., Box 2099, Pittsburgh 30, Pennsylvania.

229. DODGE GENERAL POWER TRANSMISSION MACHINERY—Catalog describes various types of power transmission apparatus by Dodge. Gives specifications, sizes, applications, and prices. Very comprehensive. — DODGE MANUFACTURING CORP., Mishawaka, Indiana.

MECHANIZE 4 Scrubbing Operations into 1

with a COMBINATION SCRUBBER-VAC!



Applies cleanser, scrubs, flushes, and picks up—in ONE operation!

Here's a timely answer to the need for reducing labor costs—*a single cleaning unit that completely mechanizes scrubbing.* A *Combination Scrubber-Vac* applies the cleanser, scrubs, flushes if required, and picks up—*all in one operation!* Maintenance men like the convenience of working with this single unit . . . the thoroughness with which it cleans . . . and the features that make the machine simple to operate. It's *self-propelled,* and has a *positive* clutch. There are no switches to set for *fast* or *slow*—slight pressure of the hand on clutch lever adjusts speed to desired rate. The powerful vac performs quietly.

Model 213P at left, for heavy duty scrubbing of large-area floors, has a 26-inch brush spread, and cleans up to 8,750 sq. ft. per hour! (Powder Dispenser and Level Cable Wind are optional.) *Finnell* makes *Scrubber-Vac Machines* for small, vast, and intermediate operations, and in *gasoline* as well as *electric* models. From this complete line, you can choose the size and model that's exactly right for *your* job (no need to *over-buy* or *under-buy*). It's also good to know that you can lease or purchase a *Scrubber-Vac,* and that *a Finnell Floor Specialist and Engineer is nearby* to help train your maintenance operators in the proper use of the machine and to make periodic check-ups. For demonstration, consultation, or literature, phone or write nearest *Finnell Branch* or Finnell System, Inc., 1304 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

FINNELL SYSTEM, INC.

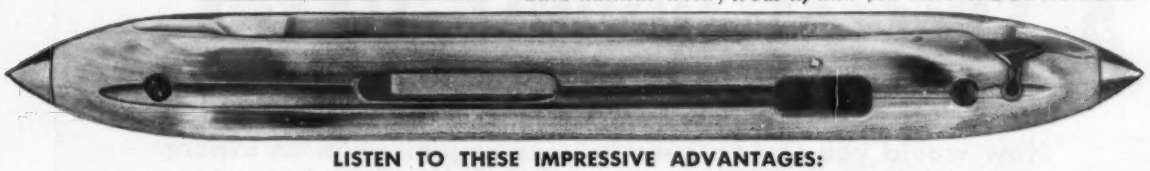
Originators of Power Scrubbing and Polishing Machines

Everything FINNELL for Floor Care

BRANCHES IN ALL PRINCIPAL CITIES

You'll be hearing a lot about the amazing **WOOD · N · DURE** PATENTED **SHUTTLE**

Take natural wood, **treat it,** *and you have* **WOOD-N-DURE**



LISTEN TO THESE IMPRESSIVE ADVANTAGES:

It will better withstand **stresses, shocks and blows** • its "hardened" wearing surfaces afford greatly increased resistance to the wear and abrasion of the loom • when it **does** begin to wear, it wears smoothly and evenly • it resists splintering of the edges • it eliminates the necessity for any fiber-cladding • it is more impervious to atmospheric changes • the treatment leaves the center-section relatively soft to afford maximum holding power around the tip • the natural wood is **toughened,** while the resiliency is **increased!**

* A **WOOD-N-DURE** Shuttle will outlast an ordinary shuttle by **2** to **1** or better!

U S BOBBIN & SHUTTLE CO.

For quotations write to nearest address

Manufacturing Plants
LAWRENCE, MASS. • GREENVILLE, S. C.
General Sales Office LAWRENCE, MASS.
Southern Division Headquarters: 428 Birney St., GREENVILLE, S. C.
BIRMINGHAM: Young & Van Supply Co.
DALLAS: O. T. Daniel, Textile Supply Co. LOS ANGELES: E. G. Paules, 1762 W. Vernon Ave.

THE SEAL OF QUALITY AND SERVICE — US — SINCE 1857

HELPFUL BOOKLETS FREE!

235. JOHNSON LEDALOYL BEARING BRONZE—Illustrated booklet telling the complete story of Johnson Ledaloyl Bronze, the newest development in self-lubricated bronze for textile bearings and bushings.—JOHNSON BRONZE COMPANY, New Castle, Pa.

237. MOTOR CONTROL—Brochure gives description and engineering data on the Cutler-Hammer Motor Control for roving and spinning frames. Users list'ed and advantages discussed.—CUTLER-HAMMER, INC., Milwaukee, Wisc.

238. TEXTILE LEATHERS CATALOG—Catalog by J. E. Rhoads & Sons gives characteristics and advantages of Rhoads "Tannate" leathers. Complete line is listed and described, and tips for correct installation. Copiously illustrated.—J. E. RHOADS & SONS, 35 North Sixth St., Philadelphia, Pa.

253. TEXTILE LUBRICATION—"Lubrication," a magazine published by the Texas Co., is available. Shows methods and means of lubricating chain drives in very comprehensive fo;m.—THE TEXAS CO., 135 East 42nd St., New York 17, N. Y.

256. METERED LUBRICATION—Bulletin 6A has 12 illustrated pages showing how central lubricating systems are applied to combers, roving frames, winders, knitters, looms, etc.—BIJUR LUBRICATING CORP., Rochelle Park, N. J.

265. SERVICE PROCEDURE FOR BALL BEARINGS—A helpful manual for maintenance engineers giving helpful hints on disassembly, inspection, cleaning, lubrication, and replacement of ball bearings in any mechanism.—NEW DEPARTURE, Division of General Motors Corp., Bristol, Conn.

277. SPECIAL TEXTILE MOTORS — Bulletin 51B6055A describes special features of "Quick-Clean" motors, including discussion on free air flow, pre-lubricated bearings, rigid cast iron frame and double insulation.—ALLIS-CHALMERS MFG. CO., Milwaukee, Wis.

INSTRUMENTS, STEAM SPECIALTIES . . .

301. JOHNSON ROTARY PRESSURE JOINTS—Bulletin describing the rotary pressure joint which requires no packing, no lubrication and no adjustment, giving installation and maintenance instruction, types, sizes, dimensions and prices.—THE JOHNSON CORP., Three Rivers, Mich.

313. VALVES—Catalog No. 51 provides complete descriptions and specifications on full line of Bronze and Iron Body Valves.—THE FAIRBANKS COMPANY, 393 Lafayette St., New York 3, N. Y.

314. MOISTURE CONTENT CONTROL—Bulletin F-3156 giving details of features and benefits of moisture equipment control for slashers and textile applications.—BARBER-COLMAN CO., Rockford, Ill.

321. RED-RAY BURNERS — Bulletin describing use of Red-Ray Burners in preheating and partial drying to increase capacity of frame.—RED-RAY MFG. CO., 445 W. 45th St., New York, N. Y.

324. STROBOTAC—Informative reprint, "Strobotac Boosts Efficiency in Woolen and Synthetic Mills."—GENERAL RADIO CO., Cambridge 39, Mass.

337. COUNTING DEVICES—Catalog of Trumeter's complete line of counters for every application where counting, measuring or registering is required. Colored pictures illustrate each application.—TRUMETER COMPANY, 1265 Broadway, New York 1, N. Y.

339. NEW LUBRICATED PLUG VALVES—Illustrated booklet by The William Powell Co. features a new line of semi-steel and steel lubricated plug valves. Advantages include quick and positive shut off. —THE WILLIAM POWELL COMPANY, 2525 Spring Grove Ave., Cincinnati 22, Ohio.

341. TEXTILE ELECTRONIC TUBES—In the modern textile plant there are many electronic devices which depend on Electronic Tubes. Specialty Distributing Co. offers information on their services with regard to prompt replacement of these.—SPECIALTY DISTRIBUTING COMPANY, 425 Peachtree Street, Atlanta, Ga.

CARDING, SPINNING, WINDING . . .

401. LUMMUS DUSTLESS, STEEL BLENDING FEEDERS—Bulletin describing automatically closing, positively locking door on feeders to prevent overloading, choking.—ALDRICH MACHINE WORKS, Greenwood, S. C.

402. AUTOMATIC CLEANING AND OVERHEAD HANDLING FOR TEXTILE MILLS—24-page bulletin describing the American Monorail Automatic Cleaner for preventing accumulation of lint on spinning, twisting, winding and warping machines. Also for cleaning monitors and card room ceilings.—THE AMERICAN MONORAIL CO., Cleveland, Ohio.

403. TRAVELING CLEANERS — 4-page bulletin describes the improved Parks-Cramer Frame and Room Cleaners including the Underframe and Floor Sweepers.—PARKS-CRAMER CO., Fitchburg, Mass.

404. LAPLESS ENDLESS SPINNER—Bulletin and full information will be supplied on lapless endless spinner and coning belting.—TON-TEX CORPORATION, 31 Columbus Ave., Englewood, N. J.

406. EMCO ROTARY CUTTER WINDER—Bulletin gives applications, sizes and exclusive features.—H. W. BUTTERWORTH & SONS CO., Bethayres, Pa.

408. CARD GRINDING INFORMATION—Outlines care of grinders, instructions on speed to run grinders, amount of oil to add to machine and other pertinent information.—B. S. ROY & SON CO., Worcester, Mass., and Charlotte, N. C.

411. SHEET METAL WORK—Pamphlet describes spinning cylinders, aspirators, card screens, sheet metal specialists.—GASTONIA TEXTILE SHEET METAL WORKS, INC., 222 East Long Avenue, Gastonia, N. C.

412. SERVICE FOLDER—Folder covers textile metal products including spinning and twisting cylinders, card screens, etc.—JENKINS METAL SHOPS, INC., Gastonia, N. C.

Now . . .

A SPECIAL DOUBLE VALUE . . .

How would you like to have in your organization an expert on all phases of textile operations whose salary was less than $2.00 a year? Impossible? No it isn't. For by putting TEXTILE INDUSTRIES on your payroll at precisely that "Salary" you will reveive the benefits of textile experts in every branch of the industry.

BUT THAT'S NOT ALL . . .

Remember, this is a DOUBLE value. If you act now, you can take advantage of a combination offer that brings you a copy of the new "Dyeing, Bleaching and Finishing Manual" in addition to the 2-year subscription to TEXTILE INDUSTRIES at a remarkably low rate.

This exclusive manual, consisting of 185 full-size pages, has been most thoroughly planned to put into your hands a wealth of material not available in one volume from any other source *at any price*. Here, recognized authorities in every branch of the industry join to aid you in all the most important phases of wet processing.

As a "Package" offer—we will enter or renew your subscription to TEXTILE INDUSTRIES—*the* magazine of the textile industry—for 24 full issues; and, in addition, will send you the new "Dyeing, Bleaching and Finishing Manual" for only $4.00.

DON'T PUT IT OFF! MAIL YOUR ORDER TODAY.

W. R. C. Smith Publishing Co.
Dept. T-2
806 Peachtree St., N.E.
Atlanta 5, Georgia

☐ **New Subscription**
☐ **Renewal Subscription**

YES! I want to take advantage of your package offer. Enter my subscription to TEXTILE INDUSTRIES for two years, and send me a copy of the new "Dyeing, Bleaching and Finishing Manual" for only $4.00.

Name _____ Title _____

Street Address or P. O. Box _____

City _____ State _____

Company Name _____

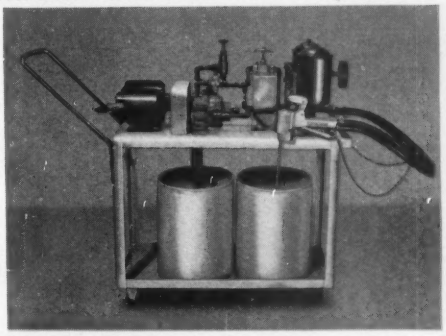
☐ **Enclosed find $4.00** ☐ **Bill me for $4.00** ☐ **Bill my company for $4.00**

It's Here! The New Wicaco Spindle Oiling Machine

The all-new Wicaco Spindle Oiling Machine fulfils the popular demand for a more efficient and economical spindle oiler.

IT HAS THESE OUTSTANDING FEATURES

- ★ Smaller than previous models—it can go anywhere a man can walk.
- ★ Light weight—it can be pulled along narrow aisles easily.
- ★ Economical—lower first cost and inexpensive operation.
- ★ New style, improved filter system cleans old oil for reuse and longer life.
- ★ Greater efficiency—operates with as little as one gallon of oil, filters the old oil and returns it for further use, or flushes out the old oil and replaces it with all new oil.
- ★ Complete flexibility—different oils may be used interchangeably by simply switching oil containers.
- ★ New filter gauge tells when filters need changing.
- ★ Relief valve permits full control of pressure from 0 to 35 lbs.



ORDER ONE TODAY
AND SEE HOW IT WILL IMPROVE
***YOUR* MAINTENANCE OPERATION**

WICACO MACHINE CORPORATION

Designers and Manufacturers of Precision Machinery and Parts Since 1868

4800 Stenton Avenue, Wayne Junction, Philadelphia 44, Pa.

HELPFUL BOOKLETS FREE!

414. WORSTED SPINNING—Bulletin explaining and illustrating Saco-Lowell's new system for worsted spinning, from top to yarn in five economical and efficient stages.—SACO LOWELL SHOPS, 60 Batterymarch St., Boston 10, Mass.

415. DOUBLER-TWISTER FOR LARGE PACKAGES—Bulletin describing two new machines producing straight or tapered top bobbins. Suitable for filament or spun yarns up to three pound capacity. Individual thread stop motion fully discussed.—FLETCHER WORKS, INC., Philadelphia, Pa.

416. THE BRIEF SAGA OF THE RING TRAVELER—An interesting history relative to the ring traveler, which is in reality hte basis of the spinning frame. John Thorpe's invention of ring traveler, the development of the spindle, and the invention of Rabeth's Bolster type spindle are covered.—NATIONAL RING TRAVELER CO., Pawtucket, R. I.

417. FEATHERTOUCH DRAFTING—Booklet describes in detail with pictures the most uniform drawing, the strongest drawing with the highest production per frame at the lowest cost.—IDEAL INDUSTRIES, INC., Bessemer City, N. C.

418. PACIFIC CONVERTER—Graphic description of machine that cuts any synthetic tow; and when desired, blends it with wool or staple sliver, keeping the fibers parallel, and issuing an even sliver of accurate blend.—WARNER & SWASEY CO., Cleveland, Ohio.

419. TEXTILE APRONS—Illustrated folder showing the steps in manufacture of genuine leather aprons for all types of long draft spinning and card room machinery.—TEXTILE APRON COMPANY, East Point, Ga.

420. AUTOMATIC FILLING WINDING — Eight-page, two color booklet describing the operation and mechanism of the Hacoba winder.—ATKINSON, HASERICK & CO., 211 Congress St., Boston, Mass.

421. CARD ROLL COVERS—Brochure describing the Davis seamless roll covers. Lists advantages, specifications and offers free trial.—THE TEXTILE LABORATORIES, P. O. Box 1003, Gastonia, N. C.

422. WARPER BEAMS—Folder describes the high speed for rayon tire cord, cotton warper beams, cast aluminum end supports and large diameter heads.—U. S. BOBBIN & SHUTTLE CO., Lawrence, Mass.

425. HANDY REFERENCE TABLES — Folder showing spinning traveler speeds, sizes of ring flanges, etc.—VICTOR RING TRAVELER CO., Providence, R. I., and Gastonia, N. C.

426. UNIRAIL UPTWISTER — Bulletin describes Universal Winding's headless package or bobbin take-up Unirail Uptwister which gives you higher yarn quality and better packages at faster speeds and lower costs, according to the bulletin. Well illustrated with advantages discussed. — UNIVERSAL WINDING COMPANY, P. O. Box 1605, Providence, R. I.

432. PRECISION TEXTILE WINDING — Bulletin on Kidde Tensions and Density Control for winding rubber cones.—WALTER KIDDE & CO., INC., Belleville, N. J.

435. DOUBLE DECK TWISTERS—Bulletin describes Jumbo (8 oz. to 16 oz. headless or take-up spool packages) and Acme (up to 10 oz. packages) models for high speed twisting of silk, rayon, nylon, etc., to finest deniers.—U. S. TEXTILE MACHINE CO., Scranton 8, Pa.

436. MAINTENANCE INFORMATION FOR YOUR SCOTT TESTER—Booklet containing maintenance data for calibration of Scott Testers, clamps for testers, gear-box lubrication, and recording.—SCOTT TESTERS, INC., Providence, R. I.

438. HEADLESS PACKAGE TWISTER ELIMINATES REDRAWING—Literature shows high-speed Face Drive Twister for accurately building tapered or straight-end headless packages which go direct to quilling or warping without redrawing.—U. S. TEXTILE MACHINE CO., Scranton 8, Pa.

445. ROLLER BEARING SPINDLES—Illustrated booklet showing various types of Marquette Roller Bearing Spindles. The unique full-floating footstep bearing is pictured in cut-away views, and its advantages are describde.—THE MARQUETTE METAL PRODUCTS CO., 1145 Galewood Ave., Cleveland, Ohio.

447. CONE WINDER—Form A95 describes the Foster Model 102 winder which produces the Foster knitting cone for spun yarns, warping cones and tubes for dyeing and twister supply.—FOSTER MACHINE COMPANY, Westfield, Mass.

453. EVENNESS TESTER—Folder explaining how this Tester takes the guess out of quality control and each processing step from carding through spinning.—USTER CORPORATION, Charlotte, N. C.

455. PIN DRAFTS—Catalog describing the use and features of the machine, what it can do to cut costs in the processing of natural and synthetic yarns, along with specifications and installation data.—WARNER & SWASEY CO., 5701 Carnegie Ave., Cleveland, Ohio.

458. CONICAL RINGS AND FLYERS—Special data available on the Herr conical rings and flyers.—HERR MANUFACTURING CO., INC., 318 Franklin St., Buffalo 2, N. Y.

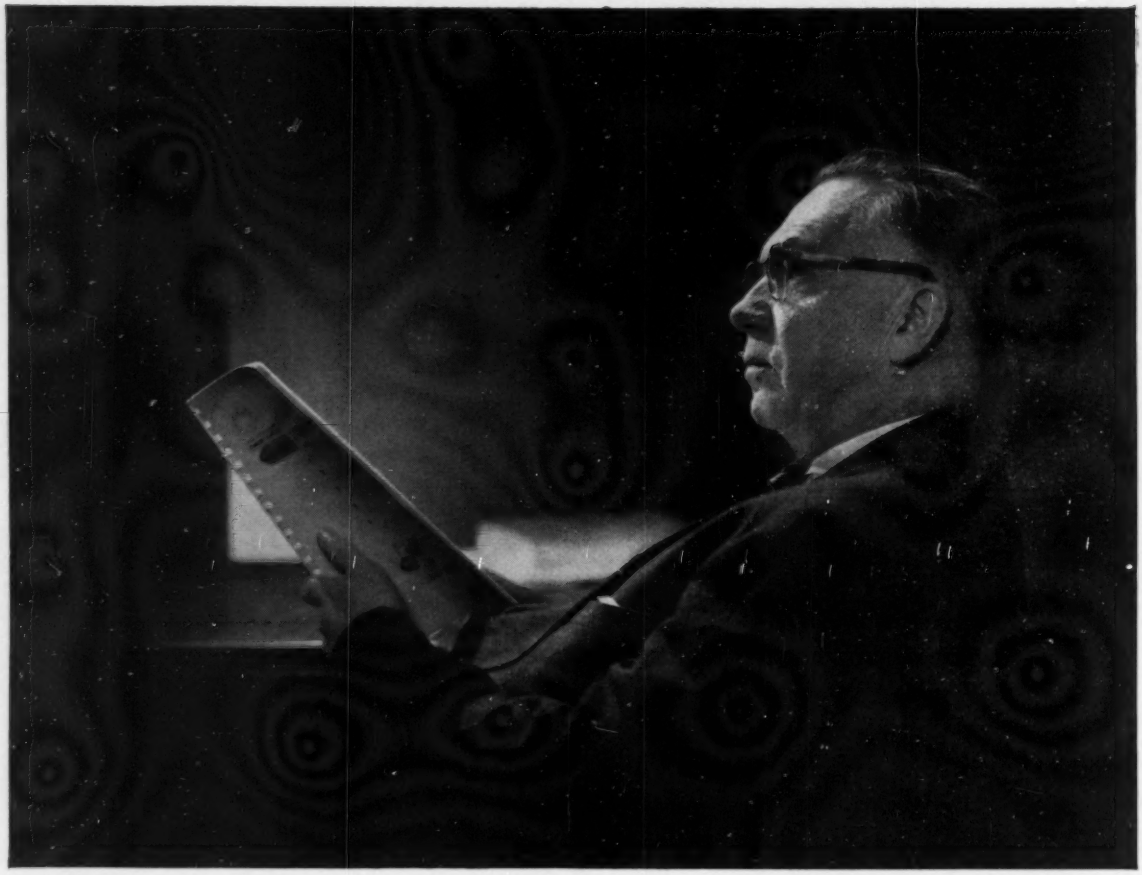
N459. TENSION CONTROLS—Folder describing tension controls. Three models—Standard, Warp, and Double Disc fully described with specific application.—WALTER KIDDE & CO., INC., Belleville 9, N. Y.

461. PRECISE WIND MACHINE—Form A-92 describes the Foster Model 75 widely used for winding straight or pineapple cones and tubes of rayon, nylon and other filament yarns. — FOSTER MACHINE COMPANY, Westfield, Mass.

462. TEXTILE MACHINERY PARTS CATALOG—A 24-page illustrated catalog describing the complete line of Dayco and Thorobred textile machinery parts including Cots, Aprons, Loop Pickers, Lug Straps, etc.—DAYTON RUBBER CO., Dayton, Ohio.

467. CARD CLOTHING.—8-page booklet by Benjamin Booth Company describes Strip-O-Matic Card Clothing and its advantages.—BENJAMIN BOOTH COMPANY, Allegheny Avenue & Janney Streets, Philadelphia, Pennsylvania.

469. SHORT CUT TO STAPLE FIBER SPINNING—Color brochure shows the ten steps in operation of the Turbo Tow Stapler, gives technical details and diagrams.—TURBO MACHINE COMPANY, Lansdale, Pa.



CHARLES R. COX

Portrait by Fabian Bachrach

"I urge every executive..."

"I know of no better method for each citizen to protect the American way of life than by building his own economic security and by helping his Government to keep financially sound. Both these results can be accomplished through the Payroll Savings Plan. I urge every executive in the nation to give this Plan his active and vigorous support."

CHARLES R. COX, ***President, Kennecott Copper Corporation***

With the active cooperation of Mr. Cox, Kennecott conducted a person-to-person canvass which put a Payroll Savings Application in the hands of *every* one of Kennecott's 20,000 employees. The men and women of Kennecott did the rest. Country-wide participation in Kennecott's Payroll Plan rose from 24% to 52%.

Your State Director, U. S. Treasury Department, is ready to help you install a Payroll Savings Plan, or show you how to build participation in an existing Plan through a simple person-to-person canvass. Write today to Savings Bonds Division, U. S. Treasury Department, Washington, D. C.

The United States Government does not pay for this advertising. The Treasury Department thanks, for their patriotic donation, the Advertising Council and

TEXTILE INDUSTRIES

HELPFUL BOOKLETS FREE!

471. FACTS ABOUT YOUR FLYERS AND SPINDLES—Booklet by Ideal Machine Shops shows how smooth Flyer and Spindle operation can help produce higher and more efficient output, good quality yarn, minimum wear, and larger bobbins.—IDEAL MACHINE SHOPS, Bessemer City, N. C.

472. TWISTING MACHINERY—Bulletin gives outstanding features, specifications facts and useful information on Novelty Yarn Twisters for Cotton, Silk, Worsted and Rayon Yarns.—Collins Brothers Machine Company, 647 Roosevelt Ave., Pawtucket, Rhode Island.

474. BALL BEARING COMB BOXES—Southern States Equipment Corp. offers literature on their famous C-1 Ball Bearing Comb Boxes. Description, working principle, cut-a-way views shown.—SOUTHERN STATES EQUIPMENT CORP., Hampton, Ga.

475. TEXTILE ROLL COVERINGS AND MILL SUPPLIES—Color booklet by Armstrong shows and scribes their complete line of textile roll coverings, including also loom supplies, mill supplies, Roll coverings for Cotton, Silk and Synthetic and Woolen and Worsted systems. An excellent guide book.—ARMSTRONG CORK CO., Industrial Div., Lancaster, Pa.

476. TEXTILE FIBER OPENER FOR COTTON, SYNTHETICS, WOOL—New brochure by Cen-Tennial Cotton Gin Co. gives complete data on the Cen-Tennial Opener which incorporates improvements on the original SRRL Opener. Complete operating procedure is described.—CEN-TENNIAL COTTON GIN CO., Columbus, Ga.

478. TIPS ON CARDING PROCEDURE—Monthly bulletin by Ashworth Brothers includes many useful tips and advice on carding operation, maintenance and care and is available to anyone interested. Bulletin is a reprint of section appearing on green paper in this issue.—ASHWORTH BROTHERS, Fall River, Mass.

WEAVING, SLASHING . . .

501. LOOMS—An accordion type folder is available entitled "Unfolding to You the World's Largest Line of Looms." Information on all types fully discussed.—CROMPTON & KNOWLES LOOM WORKS, Worcester 1, Mass.

502. COUNTING AND MEASURING DEVICES—Condensed textile catalog illustrating and describing pick counters, hank counters, cut meters, measuring counters. Wide range of counting devices for production recording on all types of textile machinery.—VEEDER-ROOT, INC., Hartford, Conn.

503. WEAVER'S KNOTTER—A catalog on the Boyce Weaver's Knotter giving a few instructions as to its use, recommendation as to the proper type knotter for the various types of yarns, and the spare parts that go to make up the knotter.—A. B. CARTER, INC., Gastonia, N. C.

504. LOOM SUPPLIES — Literature describing complete line of straps, strapping, pickers, dobby cords, sticks, binders, bumpers, brake lining and allied products.—E. H. JACOBS NORTHERN DIV., THE BULLARD CLARK CO., Danielson, Conn.

505. INNOVATION IN TEXTILE DRYING—Booklet by J. O. Ross gives details on Steam or Gas "Hot Air" Slasher for high speeds at low cost.—J. O. ROSS ENGINEERING CORP., 444 Madison Ave., New York 22, N. Y.

621. "DYEING SYNTHETIC FIBERS"—Brochure giving a comprehensive, detailed analysis of the methods and materials available for dyeing synthetic fibers.—GENERAL DYESTUFF CO., 435 Hudson St., New York 14, N. Y.

506. SLASHING HINTS—A 20-page booklet offering helpful hints on warp sizing. Subjects: Size cooking equipment, section beam tension, sizing selvages, cooking, use of split rods, weighing for the mix, tips on cooking equipment, storage in kettles, etc.—SEYDEL-WOOLLEY & CO., 748 Rice St., N.W., Atlanta, Ga.

507. VARIABLE SPEED SLASHER DRIVE—Reeves bulletin G-503 describes their Servo-Control slasher drive which automatically controls tension from creel to beam, and which controls the stretch in the slasher.—REEVES PULLEY CO., Columbus, Ind.

508. LOOM PRODUCTION CHARTS—Convenient celluloid card showing yards per loom per week of 40 hours at various loom speeds.—RALPH E. LOPER CO., Greenville, S. C.

509. MULTI-MOTOR SLASHER DRIVES—Booklet designed to bring the descriptive information on multi-motor slasher drives up to date, and emphasize the improvement in the drive through the use of Rototrol for the control of winding tension.—WESTINGHOUSE ELECTRIC CORP., 511 Wood St., Pittsburgh 30, Pa.

511. ALUMINUM BEAMS—Catalog No. 1-21 describes Hayes magnesium and aluminum specialties for the textile industry. Illustrates this company's beams that are one-third the weight of conventional types.—HAYES INDUSTRIES, INC., Jackson, Mich.

514. THE STORY OF STARCHES—Semi-technical booklet tells the story of starches and information on how they are produced, the creation of new specialty starches, the unique "man-made" starch derivatives, and the handling of starches.—NATIONAL STARCH PRODUCTS, INC., 270 Madison Avenue, New York 16, New York.

517. LOADING SYSTEM—Bulletin 417, on pneumatic loading system for Saco-Lowell slasher size box squeeze rolls, contains installation photo, features, specifications, and prices.—THE FOXBORO COMPANY, Foxboro, Mass.

521. STEEL WARP BEAMS—20-page Catalog No. 45 illustrating Standard and Special Purpose Warp Beams for the weaving industry, both broadloom and narrow fabrics. Also Textile Machinery Specialties.—MILTON MACHINE WORKS, INC., Milton, Pa.

530. ROTARY UNIONS—New catalog shows how to cut costs, get better sealing on can dryers, slashers, calenders, etc. Catalog No. 500 entitled "Where Good Connections Count."—PERFECTING SERVICE COMPANY, Atando Ave., Charlotte, N. C.

536. HOMOGENIZER IMPROVES SLASHING—Pamphlet by Manton-Gaulin Manufacturing Company shows how mechanical conversion of size by the Gaulin method produces better size. Gives installation pictures and specifications.—MANTON-GAULIN MANUFACTURING COMPANY, INC., Everett, Mass.

537. WEST POINT'S HOT AIR SLASHER—Bulletin describes advantages and capacities of new hot air slasher by West Point Foundry and Machine Works. Detailed specification included.—WEST POINT FOUNDRY & MACHINE WORKS, West Point, Ga.

L. F. Dommerich & Co., Inc.

Executive and General Offices

271 MADISON AVENUE

NEW YORK 16, N. Y.

Telephone: Murray Hill 3-8650

FACTORS

For Manufacturers and Merchants

Inquiries as to our services solicited

•

BUSINESS ESTABLISHED 1840

1805 AUCTION 1955

AT PUBLIC AUCTION

Machinery and Equipment of

EMPIRE WORSTED MILLS, INC.

Manufacturers of High Grade Worsteds

Jamestown, N. Y.

Thursday, April 21, 1955 at 10 A.M.

on the premises

3 Sets of Drawing, each comprising: Holdsworth Intersecting Gill Reducers 1953/52/51. S-L, Lowell and P. S. Ring Reducers, Rovers and Fly Frames. Holdsworth Int. Gill, Ball Deliv.; 18 S-L, Lowell and Holdsworth S. H. Int. Gill Boxes. 5 James Smith and P. S. & Stells Noble Combs 1951/50/49, 7 J. S. and C. & K. Combs. 7 Sets Worsted Cards, Scouring Unit 3-Bowl; Wool Opener.

9 Whitin 224-Sp. T. D. Herring Worsted Spin. Frames 1948, Mod. BW. 3" R. S-L, Lowell and Prince Smith 192 & 200 Sp. T. D. Herring Spin. Frames 2-3/4" R. Converted Frames. Cap Spinning Frames.

6 Whitin 200-Sp. T. D. Herring Twisters 1946, 3-1/2" Ring. S-L Dolly Roll Twisters. 2 Foster 80-Sp. Hi-Speed Wood Tube Winders 1949, Mod. 102. 2 Foster Wood Cone Winders, Mod. 102.

3 Davis & Furber Pinless Dressing Reels 92" 1952/50. Altemus Pinless Dressing Reels.

2 Whitin-Schweiter Auto. Filling Winders 1945, Each with 42 Spindles in Tandem with Auto Loading Device.

Riggs & Lombard S. S. 8-Sp. Top Dye Kettle 1944, S. S. and Cypress 8/4/2-Sp. Top Dye Kettles. Klauder-Weldon Skein Dyer, Franklin Process Dye Unit. Rodney-Hunt Tru-Shade Tot-Enc. S. S. Piece Dye Kettle 1947. James-Hunter Washer 1947, Riggs & Lombard B. B. Express Fulling Mill 1944/43.

Kenyon Pin Tenter Cloth Dryer 1949

P. & W. (Davidson) 3-Blade Shear 1949/50 68"

David Gessner Hi-Speed Cloth Press 1951, 72"

David Gessner Hydrolizer Machine 1951, 72"

48 C. & K. Converted Auto. Int. Looms 72" R. S.; 60 C. & K. Int. Box Looms 72" R. S. H-W Yarn Conditioner, Semi-decater, Cloth Conditioner, Sargent Back Wash Unit with Dryer and Gill Box. Hunter 2 and 3 Bowl Crabs, Hot Air Slasher, Kenyon Washers, Scutcher 78", Jack Spoolers, P & W 4-roll Brush, 2 Toledo Cloth Scales, P & W Folders, Tacking Machine, Centrifugal Extractor 54", Rotary Mill Sewing Machines with Merrow Heads, Etc.

Approx. 7000 Lbs. 2-Ply Worsted, Rayon and Asstd. Novelty and Decorative Yarns; Various Colors.

Approx. $12,000 Inventory Cost of Open Cans of Dyestuffs, Asstd. Ciba, Geigy, National, Dupont, General and Other Brands. Starch, Penetrolin, Oils and Acids.

Miscellaneous: Factory Box Trucks, Roving and Gill Box Cans, Spools, Bobbins, Comb Circles, Machine Parts, Gill Box Aprons, Scales, Blower, Shafting. Steel Bins and Electric Motors 220/440 Volts.

Descriptive Illustrated Catalogue Upon Application To

SAMUEL T. FREEMAN & CO.

—Auctioneers—

"A Century and a half of selling at auction"

1808-10 CHESTNUT STREET, PHILADELPHIA 3, PA.

80 Federal Street, Boston 10, Mass.

HELPFUL BOOKLETS FREE!

538. AIR SLASHER DRYER—Pamphlet by Proctor & Schwartz shows construction and operating details of the Proctor Air Slasher Dryer. Advantages listed and cut-away view shown.—PROCTOR & SCHWARTZ, INC., 7th St. and Tabor Rd., Philadelphia 20, Pa.

539. AUTOMATIC REGAIN CONTROL OF RAYON AND SYNTHETIC FIBER SLASHING — Technical booklet by Minneapolis-Honeywell gives data on their electronic, multi-range "Moist-O-Graph" system for controlled regain. — MINNEAPOLIS-HONEYWELL REGULATOR CO., Station 64, Philadelphia 44, Pa.

540. SLASHING EQUIPMENT—Brochure by Tower Iron Works shows different types of slashing equipment, enumerating characteristics and advantages of each.—TOWER IRON WORKS, 50 Borden St., Providence 3, R. I.

545. NOPCO CHEMICAL DATA SHEETS—Now available are Nopcostats, Nopco Sizes N and D, Important points in Warp Sizing, Interpretation of Analysis, Wetting Agents, Balanced wool and worsted oils, Acetate Warp Sizing, Viscose warp sizing, Rayon soaking.—NOPCO CHEMICAL CO., Harrison, N. J.

DYEING, FINISHING CLOTH ROOM . . .

601. CONTINUOUS PEROXIDE BLEACHING RANGES—Booklet gives illustrations and describes uses and gives specification of Ranges.—RODNEY HUNT MACHINE CO., 49 Mill St., Orange, Mass.

602. CONTROLLED VAT DYEING—Calco technical booklet No. 828 discusses Stabilization of Vat Dyes at Elevated Temperatures, Instrumental and Analytical Measurements, Leuco Potentials.—AMERICAN CHEMICAL CO., Cyanamid Calco Division, Bound Brook, N. J.

606. HYDRAULIC POWER UNITS—Literature describing hydraulic unit, motor, pump, reservoir, valving a small compact unit for operating of hydraulic calenders, presses, hydraulic controls, etc.—B. F. PERKINS & SON, INC., Holyoke, Mass.

608. WASHERS FOR SCOURING, BLEACHING, ACIDIFYING—Well-illustrated booklet shows how Sargent's modern, high-capacity, continuous process washers can help maintain quality and decrease costs. Contains operation diagram and good commentary on construction.—C. G. SARGENT'S SONS CORPORATION, Graniteville, Mass.

610. PROCTOR DRYING MACHINERY FOR THE TEXTILE INDUSTRY—Illustrated, descriptive catalog on all types of dryers for raw stock, warps, package dyed and automatic skein yarn. Also includes Pre-Boarding and Automatic Boarding Machines for hosiery.—PROCTOR & SCHWARTZ, INC., 7th and Tabor Rd., Philadelphia, Pa.

615. HIGH PRODUCTION EXTRACTOR FOR RAW STOCK—YARN—HOSIERY—Descriptive bulletin and full information on automatic Twintainer Extractor with bottom-unloading removable baskets. Machine replaces three conventional extractors, lowers labor costs.—FLETCHER WORKS, INC., Philadelphia, Pa.

616. FINISHING DRIVES—32-page booklet covers complete drives Westinghouse has engineered for the textile finishing industry. Describes all types of finishing ranges and discusses advantages of Westinghouse drives for these installations. "Packaged" drives for batch processes covered.—WESTINGHOUSE ELECTRIC CORP., 511 Wood St., Pittsburgh 30, Pa.

617. AUTOMATIC CONTROL SYSTEM FOR CONTINUOUS BLEACHING—Illustrated folder describes the new method of controlling the temperature, pressure, and liquid level in the continuous bleach operation.—TAYLOR INSTRUMENT COMPANIES, Rochester 1, N. Y.

619. PENFORD FINISHING GUMS—Booklet by Penick & Ford gives complete data, including physical properties and results which may be expected on Penford gums.—PENICK & FORD, LTD., 420 Lexington Ave., New York 17, N. Y.

620. REGENERATION OF ZEOLITE WATER SOFTENERS—Booklet explains advantages of International's Lixate Process in regeneration of zeolite water softeners. Shows how it cuts costs and does a better job.—INTERNATIONAL SALT COMPANY, INC., Scranton, Pa.

623. SELVAGE GUIDER—The Marshall and Williams positive overfeed and selvage guider is described in a brochure as being developed to meet the most modern requirements of the textile finishing industry. Full description, pictures, and advantages discussed.—MARSHALL & WILLIAMS CORPORATION, 46 Baker Street, Providence 5, R. I.

627. SINGLE APRON STOCK DRYERS—Folder presenting the latest idea in automatic drying which every mill having drying problems can profitably use to meet modern manufacturing conditions.—C. G. SARGENT'S SONS CORP., Graniteville, Mass.

628. TREATMENT OF SYNTHETIC TEXTILE FINISHES—High speed drying and curing of synthetic finishes by means of far-infrared radiation is covered in a new 22-page folder entitled "The Textile Report" by Edwin L. Wiegand Company, 7700 Thomas Blvd., Pittsburgh 8, Pa.

631. ELIMINATE DYE-BATH SHOCK — Data sheet by Foxboro shows how woven fabrics and hosiery may be protected from Crow's-feet, uneven shade, creasing caused by too rapid cooling of goods.—FOXBORO COMPANY, 487 Neponset Ave., Foxboro, Mass.

632. LUG STRAP WASHERS—Series 1-C illustrated bulletin detailing right and wrong application and use of washers.—E. H. JACOBS NORTHERN DIV., Danielson, Conn.

637. BALL BEARING TURN TABLE—Leaflet describing this 48" diameter steel turn table for use in mills where the cloth is delivered in rope form to trucks and the trucks are paced in position ahead of a Scutcher or cloth opening machine. Advantages discussed.—BIRCH BROTHERS, INC., 32 Kent St., Somerville, Mass.

639. ROTARY DYEING MACHINE—Booklet No. 425 illustrating the features of these stainless steel machines used for dyeing hosiery, hats, gloves, socks, etc.—SMITH, DRUM & CO., Allegheny Ave. at 5th St., Philadelphia 33, Pa.

653. GUIDERS AND TENSION DEVICES—Illustrated and described are the Mount Hope Precision Guiders and open width Tension Devices used for accurate, straight line guiding of open width goods. Bulletin SG-PG.—MOUNT HOPE MACHINERY CO., 15 Fifth St., Taunton, Mass.

655. PAPER TUBES FOR YARN AND CLOTH—Complete data to help you solve your paper tube problems. Overnight delivery of yarn and cloth paper tubes and boards. Shows how warehousing of these items can be avoided.—TEXTILE PAPER PRODUCTS, Cedartown, Ga.

SERVING THE TEXTILE INDUSTRY FROM MAINE TO TEXAS

HERE'S HOW YOU CAN CUT PRODUCTION COSTS—

Lack of uniform accuracy in Spinning Cylinders and Card Screens causes costly down time. Production costs soar as breakdowns mount. Performance . . . Profit . . . Prestige . . . all suffer in direct proportion to the number of imperfections that get into finished production.

That's why so many mills are "Turning to Jenkins" for consistently greater uniformity in the Spinning Cylinders and Card Screens they use. Here closest tolerances are equalled or surpassed with unfailing skill and precision. Here capacity is big enough to assure speedy and efficient service regardless of your needs.

42 years of experience and study have furnished us with the knowledge that goes into our finished products.

OUR WORK MAY BE IMITATED BUT NEVER DUPLICATED

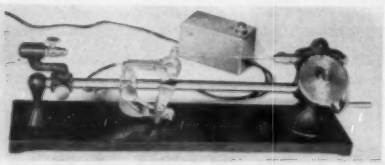
JENKINS METAL SHOPS, INC., GASTONIA, N. C.

QUALIFIED ENGINEERING

40 YEARS CONTINUOUS SERVICE TO THE TEXTILE INDUSTRY

SHOWN AT THE Knitting Arts Exhibition
BOOTHS 297-298

Latest Developments for Textile Testing



MODEL T-1 TWIST COUNTER

Standard Scott Twist Counter equipped with new device for determining precisely the twist of singles yarn.

1P-2 SERIGRAPH
now with
Instant-Return Feature

The touch of a lever returns the incline-plane instantly to starting position—or can return at controlled rate for hysteresis test.

MODEL DH TENSILE TESTER

An inexpensive tester for complying with ASTM specifications for natural and synthetic fabrics (woven or knitted), skein yarn, and single ends.

Also Model X-5 Scott Tester*, a highly satisfactory tensile tester for yarn and thread at a low price.

*registered trademark

(We will gladly mail literature upon request)

SCOTT TESTERS, INC.

60 Blackstone St., Providence, R. I.

Southern Service and Repair Facilities
Scott Testers (Southern), Inc.
P. O. Box 834
Spartanburg, S. C.

Southern Sales Rep.:
John Klinck
304 West Forest Avenue
North Augusta, S. C.

REPRESENTATIVES IN FOREIGN COUNTRIES

Standard of the World

Better
IDENTIFICATION BANDS
for your
ROVING CANS

IDENTIFICATION BANDS OF UNITED ELASTIC WEBBING FEATURE

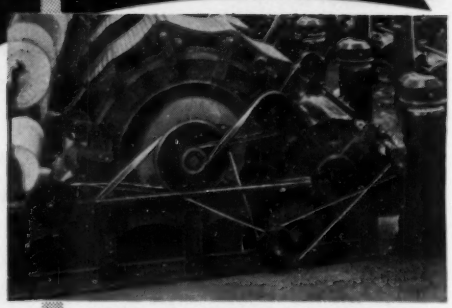
- the most in service
- a very attractive price
- well-made, firmly-woven construction
- securely sewed laps
- any desired color
- bright, solid, even colors
- fast-to-light, non-fading dyes
- easily recognized at a distance
- easily removed and transferred

If you will specify the can diameter; and the color, width and quantity of bands desired; we will submit samples and quote prices.

UNITED ELASTIC CORPORATION

EASTHAMPTON, MASS.
Sales Agent:
Roy Schrimshire
P. O. Box 906, Columbus, Georgia

TON-TEX
COTTON CARD BELTS



Lapless Endless Round Ton-Tex — a new solution to Card Band problems. A HIT wherever installed.

Vibrationless, with little stretch and no slippage. For cylinder, vibrator, and grinder drives — no wear or effect on operation due to crossing. Complete stock of all popular sizes.

The new team mate of proven flat endless TON-TEX LICKERIN, DOFFER, and STRIPPER BELTS.

Write For Complete Literature

TON TEX Reg U S Pat Off

TON-TEX CORPORATION
31 Columbus Ave., Englewood, New Jersey
GREENSBORO, N. C.
217 Jefferson Bldg.
BOSTON, MASS.
51 Sleeper St.
28 Years Serving Industry

HELPFUL BOOKLETS FREE!

658. BEAM MULTIPLE DYEING—Information on the Morton System Horizontal Beam Dyeing machine is available. Features include minimum handling of beams and the use of a common or individual dye-bath for as many as six beams.—MORTON MACHINE WORKS, 1718 Third Avenue, Columbus, Ga.

DYESTUFFS, CHEMICALS, SOAPS . . .

701. MAGNESIUM APPLICATIONS—Case history information on magnesium application in the textile field, published bi-monthly with latest developments in the magnesium industry.—DOW CHEMICAL CO., Midland, Mich.

704. FUNDAMENTALS OF INDUSTRIAL WATER TREATMENT PROCESSES—24-page booklet entitled "If You Use Water" discusses the fundamentals of the three major classifications of industrial water treatment based on ion exchange: softening, dealkalization, and deionization.—ROHM & HAAS COMPANY, Resinous Products Div., Washington Square, Philadelphia 5, Pa.

705. THEORETICAL AND APPLIED SILK-SOAKING—Attractive 23-page booklet outlining methods of silk-soaking and outlining investigation on the soaking, back-winding and d[illegible]aming of silk.—HART PRODUCTS CORP., 1440 Broadway, New York 18, N. Y.

710. DEPUMA—An odorless, viscous, non-evaporating emulsion which is highly efficient as an anti-foam, useful in all phases of dyeing and printing.—AMERICAN ANILINE PRODUCTS, INC., 50 Union Square New York, N. Y.

712. CATALYST AC-6—Booklet describes how Catalyst AC-6 steps up curing efficiency as much as 25 per cent. Free eight-ounce bottle upon request.—MONSANTO CHEMICAL COMPANY, Plastic Division, Dept TI-3, Springfield 2, Mass.

713. LIOVATINE ED—Vat dyeing assistant increasing penetration and level dyeings with maximum yield of color.—SANDOZ CHEMICAL WORKS, 61 Van Dam St., New York City.

714. NEW SODA ASH BULLETIN—64-page edition contains both new material and revisions of previously used data covering the subject.—SOLVAY SALES DIV., 40 Rector St., New York 6, N. Y.

715. AQUAROL AND ARKANSAS PRODUCTS—Bulletin on Aquarol water repellent finish with method of preparing bath; also on other Arkansas products for cotton, wool, silk and yarn, hosiery processing.—ARKANSAS CO., INC., Newark, N. J.

719. WOOL OIL—Descriptive booklet on anti-static fiber lubricant, Twitchell 7241. Performance factors given particular emphasis are static control, scourability, lubricity and resistance to yellowing.—EMERY INDUSTRIES, INC., Dept. 5, Carew Tower, Cincinnati 2, Ohio.

720. INDUSTRIAL OIL—Bulletin catalogs all of Swift's Industrial Oil and Fatty Acid products. Included are detailed specifications, shipping information and suggested usage on products of animal, vegetable and marine sources.—SWIFT & COMPANY, Industrial Oil Department, 1809 165th Street, Hammond, Indiana.

721. SURFAX 1288—Product data sheet explains this useful wetting and rewetting agent. Described as being water soluble at all temperatures and is a highly concentrated, economical surface active agent.—E. F. HOUGHTON & CO., 303 W. Lehigh Ave., Philadelphia, Pa.

722. RESINS & LATICES — Booklet describes chemigum, latex, pliolite latex, plivoia latex, pliovic AO and their applications. Gives properties of Goodyear Latices.—GOODYEAR CHEMICAL DIV., 1144 East Market St., Akron 16, Ohio.

727. COLOR PRINCIPLES—Booklet available from Sandoz Chemical describes the fundamental principles of color and its measurement. Booklet has been adopted by several of the leading textile schoo's.—SANDOZ CHEMICAL WORKS, INC., 61 Van Dam Street, New York 13, N. Y.

729. STATIC AND STATIC CONTROL — Papers deal with historical background of static electricity and the problems caused by it along with methods of controlling them.—DEXTER CHEMICAL CORP., 819 Edgewater Road, New York 59, N. Y.

733. WOOL OILS—Twin booklets by Proctor and Gamble tell of the influence of wool oils in producing quality yarns and fabrics, and of Proctor and Gamble's Proxol T, an outstanding wool oil.—PROCTOR & GAMBLE DIST. CO., Cincinnati, Ohio.

734. BLEACHING WITH PEROXYGEN CHEMICALS—Bleaching methods for cotton, rayon, nylon and animal fibers are comprehensively treated in Becco Research and Development Dept., Bulletin No. 52, now available.—BUFFALO ELECTRO-CHEMICAL CO., INC., Station B, Buffalo 7, New York.

745. RAPIDASE FOR DESIZING—Bulletin explaining in detail the properties and characteristics of Rapidase.—WALLERSTEIN CO., INC., 180 Madison Avenue, New York 16, N. Y.

749. WATER SOLUBLE GUMS—Booklet giving the origin, gathering, marketing and uses of water soluble gums. This booklet No. 23 is beautifully illustrated, and is one of the few treatises on the subject.—JACQUES WOLF & CO., Passaic, N. J.

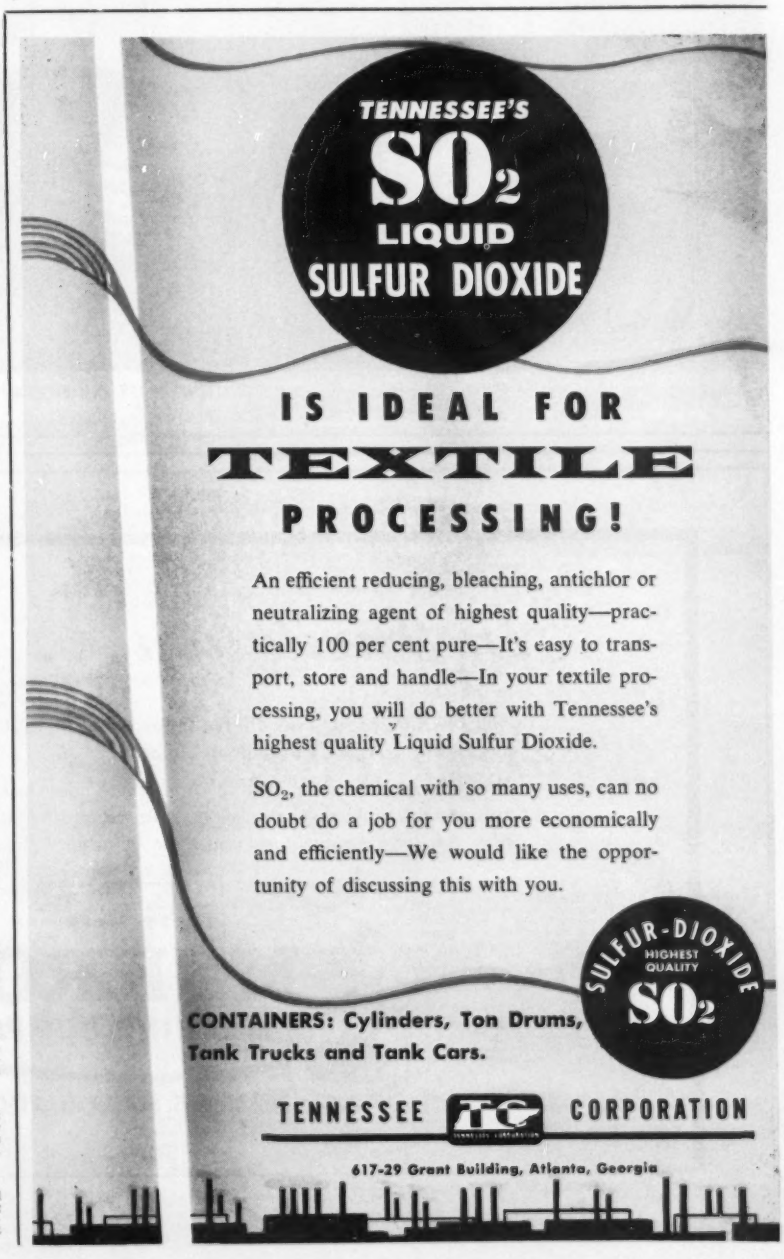
753. TRITON X-100—Booklet available describing this highly concentrated detergent and wetting agent. Main uses fully discussed and chemical properties brought out.—ROHM & HAAS COMPANY, Philadelphia 5, Pa.

757. THE CHEMISTRY OF CYNANURIC CHLORIDE—Very comprehensive technical text by American Cyanamid Co. Gives Physical Properties, Reaction Chart, Chemical Properties, Potential Applications, Toxicity, Table of Alcohol Reactions, Table of Amine and Related Compound Reactions.—AMERICAN CYANAMID CO., 30 Rockefeller Plaza, New York 20, New York.

766. DU PONT PEROXIDE BLEACHING SYSTEMS—New book illustrating and describing this continuous peroxide bleach system. Layouts and other information included.—E. I. DU PONT DE NEMOURS & CO., ELECTROCHEMICAL DEPT., Wilmington, Del.

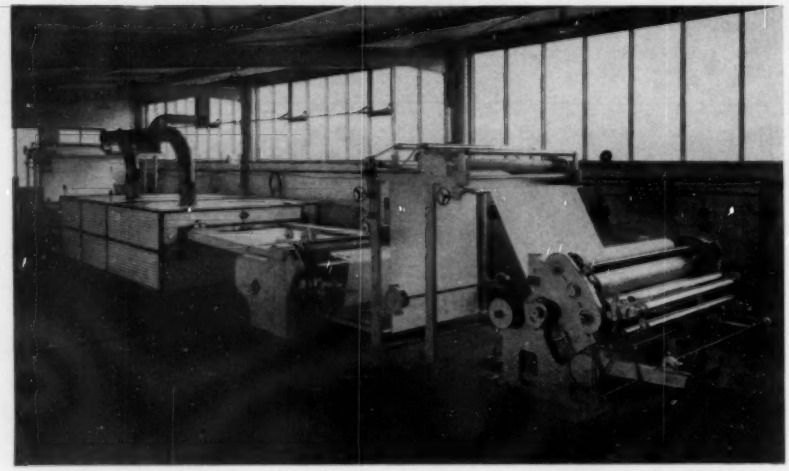
769. SURFACE TENSION DEPRESSANT — The booklet, "Mercerizing and Alkamerce—The Ideal Dry" which can be used as a wetting agent; a dye leveling agent, a penetrant in package dyeing.—HART PRODUCTS CORP., 1440 Broadway, New York, N. Y.

774. ROYCE TEXTILE CHEMICALS—This booklet briefly describes the leading Royce products for textile processing, printing, dyeing and finishing.—ROYCE CHEMICAL COMPANY, Carlton Hill, N. J.


TENNESSEE'S
SO2
LIQUID
SULFUR DIOXIDE
IS IDEAL FOR
TEXTILE
PROCESSING!
An efficient reducing, bleaching, antichlor or neutralizing agent of highest quality—practically 100 per cent pure—It's easy to transport, store and handle—In your textile processing, you will do better with Tennessee's highest quality Liquid Sulfur Dioxide.
SO2, the chemical with so many uses, can no doubt do a job for you more economically and efficiently—We would like the opportunity of discussing this with you.
SULFUR-DIOXIDE
HIGHEST QUALITY
SO2
CONTAINERS: Cylinders, Ton Drums, Tank Trucks and Tank Cars.
TENNESSEE
TC
CORPORATION
617-29 Grant Building, Atlanta, Georgia

FAMATEX Tenter Frame

with Combination of Pins and Clips



See Demonstration Model of the new Famatex Tenter at the KNITTING ARTS EXHIBITION, Booths Nos. 66-73, Atlantic City, N. J., April 25-29, 1955.

SPEED: 0-250 YARDS Per Minute

More than 300 complete frames delivered during the past 5 years all over the world.

Write for Illustrated folder.

REINER-FAMATEX, INC.

550-64 Gregory Ave., Weehawken, N. J.

An Invitation . . .

You are invited to visit the Merrow booth — #270 — at the Knitting Arts Exhibition this month.

We'll be glad to show you "What's New" and talk over any overstitching, shell stitch, overseaming or other special edge finishing applications you have in mind.

TRADE MARK REG

The **MERROW MACHINE COMPANY**

ESTABLISHED 1859 INCORPORATED 1894

2805 LAUREL STREET • HARTFORD • CONN., U.S.A.

"What You Want When You Want It"

WONALANCET

Cotton Waste Fibres

for Felting, Batting, Wadding

for Shipment from New England and Southern mill points

Uniform as to grade, staple, color and character. Free from variations in quality of lot to lot shipments. Available from stock in any quantity at all times.

WONALANCET COMPANY

3240 Peachtree Road, N.E., Atlanta, Georgia

Mill and Main Office:

128 Burke St., Nashua, New Hamp.

SEND FOR YOUR COPY OF OUR **NEW PRICE LIST**

Just off the press, this handy pocket booklet lists approximately 1,000 styles and sizes of DIAMOND FINISH Rings—also holders and converting accessories.

WHITINSVILLE (MASS.) SPINNING RING CO.

Makers of Spinning and Twister Rings since 1871

DIAMOND FINISH

Southern Representative: W. K. SHIRLEY, 25 Oak St., Belmont, N. C.

HELPFUL BOOKLETS FREE!

KNITTING . . .

801. THE WILDMAN SINGLEHEAD FULL-FASHIONED HOSIERY MACHINE—Literature on request from the WILDMAN MFG. CO., Full-Fashioned Division, Norristown, Pa.

808. REINER WARPER—Full width and sectional Warpers for all requirements in the knitting and weaving industry fully described in recent catalog.—ROBERT REINER, INC., Weehawken, N. J.

818. MILTON LIGHT METAL BEAMS FOR EVERY APPLICATION — Catalog 45-A describing Light Metal Tricot Beams made in Standard and Special sizes plus Special Purpose Light Metal Textile Equipment.—MILTON MACHINE WORKS, INC., Milton, Pa.

823. VARIABLE STRIPER—Booklet available describing Supreme's complete line of automatic variable Stripers and Pattern Placer machines.—SUPREME KNITTING MACHINE CO., INC., 105 Johnson Ave., Brooklyn 6, N. Y.

828. THE KIDDE KNITTER—Bulletin describing this newest in Raschel-type warp knitting machines and higher production attained with it.—KIDDE MANUFACTURING CO., INC., Farrand St., Bloomfield, N. J.

SEWING MACHINES . . .

924. BUTT-TACKING SEWING MACHINE — Booklet describes an operating installation of the Merrow single thread butt-tacking sewing machine. Gives performance data, and advantages of butt-tacking.—THE MERROW MACHINE COMPANY, 28 Laurel Street, Hartford, Connecticut.

925. SEWING MACHINES—The Lock-Stitch bulletin No. 258 describes and illustrates new, high speed, single needle Union Special Lock-Stitch machine for general purpose industrial sewing operations.—UNION SPECIAL MACHINE CO., 407 N. Franklin St., Chicago 10, Illinois.

MATERIALS HANDLING . . .

1003. CASTERS AND WHEELS—192 pages, describing casters and wheels suitable for all types of industrial applications. Every mechanical engineer and purchasing agent should have this.—DARNELL CORP., LTD., Long Beach, Calif.

1006. LANE CANVAS BASKETS—16-page illustrated booklet describing the Lane line of canvas baskets for textile use.—W. T. LANE & BROTHERS, Poughkeepsie, N. Y.

1007. OVERHEAD HANDLING EQUIPMENT—56 pages of illustrations showing successful applications of monorail systems to meet every kind of handling problem.—THE AMERICAN MONORAIL CO., 13106 Athens Ave., Cleveland 7, Ohio.

1008. CASTERS AND WHEELS—An illustrated booklet with complete specifications showing a complete assortment of Cotton Textile Casters.—THE COLSON CORP., Elyria, Ohio.

1010. CONVEYOR KEY BOOK—A guide to production "step-ups" now possible with modern conveying. Shows time-and-effort savings. Well illustrated with photos showing plant layouts and sketches showing where, how and why different types of conveyors are used for maximum results.—LOGAN CO., 1115 Franklin St., Louisville, Ky.

1011. TEXTILE TRUCKS—Booklet describing doff boxes, frames and trucks, yarn, waste, platforms, conditioning, steep lap, fiber, utility trucks, etc. Uses and description. — EXCEL TEXTILE SUPPLY CO., Lincolnton, N. C.

1017. "HOW TO OPERATE A LIFT TRUCK"—Booklet gives information about the operation of a lift, truck, preventive maintenance, safety and basic materials handling.—HYSTER COMPANY, Portland 8, Oregon.

1030. CDF RECEPTACLES—This 32-page catalog, R-11, profusely illustrated in color, shows Continental-Diamond's line of boxes, trucks, cans, barrels, baskets and trays. Complete description and specifications are given on each item.—CONTINENTAL-DIAMOND FIBRE CO., Newark 11, Del.

MISCELLANEOUS . . .

1102. BALING PRESSES—An illustrated folder describing this manufacturer's complete line of balers for all materials. Both Downstroke and Upstroke models.—ECONOMY BALER CO., Ann Arbor, Mich.

1103. UNBRAKO SCREWS — Illustrated 16-page booklet No. 570 gives data on Unbrako hollow set screws, with knurled point, self-locking features. Includes miscellaneous screw and locking nut data.—STANDARD PRESSED STEEL CO., Jenkintown, Pa.

1111. BRUSHES—A 26-page booklet is now available which describes and illustrates this manufacturer's line of brushes for the textile industry.—GASTONIA BRUSH COMPANY, Gastonia, N. C.

1112. THE RANDOM WEB PROCESS—Bulletin No. 101 describes the Rando-Webber and Rando-Feeder machines, and discusses the origin and development of the Random Web process which produces a non-oriented web suitable for processing into felts, wadding, heavy mats and non-woven fabrics on a continuous basis. Engineering data and cut-away diagrams. — CURLATOR CORPORATION, Textile Division, 565 Blossom Rd., Rochester, N. Y.

1113. MACHINE KNIVES — Catalog and price sheets describing this company's line of knives for use on textile machinery.—TAYLOR-STILES & CO., 21 Bridge St., Riegelsville, N. J.

1115. TEXTILE WRAPPING MACHINES — Brochure describing automatic wrapping machines for various types of textile products, including the new Hayssen V-Type Underfold, most protective package made.—HAYSSEN MANUFACTURING CO., Sheboygan, Wisconsin.

1122. BALING PRESSES—Bulletins available describing this company's line of motor-driven and hydraulic baling presses for finished goods, textile fibers, wool, and waste of all kinds.—LOGEMANN BROTHERS CO., 3150 West Burleigh St., Milwaukee, Wis.

Now with special test platter!

SHADOGRAPH . . . Best for Micronaire Test

Speed and accuracy in weighing 50-grain samples of cotton for the Micronaire test have made EXACT WEIGHT'S SHADOGRAPH the favorite of the textile industry for this operation. Reports from the field indicate up to 100% increase in testing speed after the installation of a SHADOGRAPH. Shadow-edge indication is projected by a beam of light, eliminating all friction of indicating mechanism and increasing visible accuracy over 300%. Read from any angle without parallax.

Sales and Service from Coast to Coast

Exact Weight Scales

Better quality control
Better cost control

THE EXACT WEIGHT SCALE COMPANY

922 W. Fifth Avenue, Columbus 8, Ohio

In Canada: P. O. Box 179, Station S, Toronto 18, Ont.

Send full details on Shadograph for Micronaire test

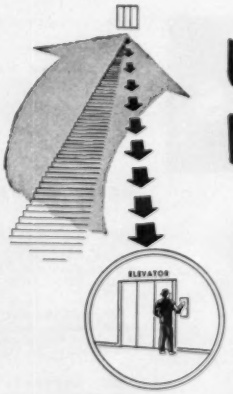
Name .....

Address .....

City ..... Zone..... State.....

DRONSFIELDS' PATENT ATLAS BRAND EMERY FILLET

STOCKED BY
THE PRINCIPAL MILL SUPPLY HOUSES AND CARD MAKERS



Bring the UPSTAIRS... DOWNSTAIRS with a MONARCH ELEVATOR

An elevator engineered to your particular requirements, offers an immediate and long range solution to most problems of two or more story plant operations.

- It solves the handling of materials.
- It answers personnel fatigue problems.
- It gives full functional value to upstairs space.
- Cost of installation and operation is relatively low.

Monarch is the largest elevator manufacturer in the Southeast. A Monarch engineer will be glad to survey your elevator needs without cost or obligation.

Electric and Oil Hydraulic, Dumbwaiters, Platform Lifts, and Home Elevators. Repairs and Maintenance on all Makes.

MONARCH ELEVATORS

Phone 2-4563 Greensboro, N. C.

Offices in Principal Southern Cities

What the TEXTILE MILLS are doing

(Continued from page 64)

D. Milliken, treasurer of Mt. Hope, said that, regardless of what action was taken on the option, "the job security of our present employees will not be endangered."

Tolar, Hart & Holt Mills, Inc., Fayetteville, N. C., is the surviving corporation from the merger of Waxhaw (N. C.) Mfg. Co. into the Fayetteville company. At the time of the merger Waxhaw was not in operation.

Walter Mueller recently purchased from Max Mueller, his father, the **Van Holland Hosiery Corp.,** Paterson, N. J. He expects to continue operation of the full-fashioned plant at the present location.

So that mill and merchandising operations might be more closely coordinated, Virginia Woolen Co., Inc., previously an independent sales agency, was recently made the direct sales agent and wholly-owned subsidiary of **Virginia Woolen Co.,** Winchester, Va.

Ted Thal, owner of the **Thalco Co.,** glass fiber producers, of Los Angeles, Calif., recently purchased **Strandcote Corp.,** Hawthorne, Calif., weavers of glass rovings.

Modernization is the news from **Summerville (Ga.) Manufacturing Co.** New equipment is being installed in the spinning and weaving departments, with completion expected this summer.

Seattle (Wash.) Knitting Mills, Inc., is the name of a new firm resulting from the merger of **Oetonek Knitting Co.** and **Sportcraft Knitting & Manufacturing Co.** The machinery and equipment of the latter company have been moved from 1215 3rd Ave., Seattle, to the Octonek plant at 2013 4th Ave. R. B. Taft, who was president of Sportcraft, is president and manager of the merged companies.

Spider Looms, Ltd., weavers and manufacturers of neckties, have moved from Kingsway to new and larger quarters at 5560 Lincoln St., Vancouver, British Columbia.

Spinners Processing Co., Spindale, N. C., is modernizing its machinery and rearranging its plant. The work includes renovation of the building and modernization of the warp mercerizing range and the dye equipment, and also a two-story building for a new laboratory, dye mixing room, and dye storage facility.

Pittsburg Corning Corp.

New Addition Completed at Springs Bleachery

In this air view of Springs Cotton Mills' bleachery at Grace, S. C., showing the 16-acre expanse of roof, a recently completed new addition can be seen at upper right. To eliminate condensation and conserve heat in the winter, the entire roof area was insulated with cellular glass insulation, according to an announcement. Since the insulation is composed of sealed glass cells, there is no problem of moisture penetration, which would cause loss of insulating efficiency.

Buildings, machinery, and all equipment of the **Graysville Hosiery Mills,** Dayton, Tenn., have been leased for five years by the **Chester H. Roth Co.,** New York, N. Y.

Visit us at
Booths 547-548
Knitting Arts Exhibition

hydrocop *and*
3b softener

Use this efficient—time proven—emulsion combination from your winder emulsion troughs and profit from a new high in quality, luster and softness. HYDROCOP and 3B SOFTENER will help you to obtain increased production of smooth, more even running, more easily knit yarns.

HYDROCOP and **3B SOFTENER** speed up the conditioning of greige, dyed or bleached yarns; cotton; woolen, worsted and cashmere; orlon; nylon; rayon and blends. Produced from first quality vegetable oils and non-mineral waxes which insure dependable performance, HYDROCOP and 3B SOFTENER are highly resistant to aging and discoloration, and do not cause shade change.

CHENILLE YARNS—Hydrocop—used with Mildant RX—will produce perfectly conditioned, smooth running, mildew resistant chenille yarns.

let us send you samples and more information.

LAUREL SOAP MANUFACTURING CO., INC.

Wm. H. Bertolet's Sons · established 1909
2603 East Tioga Street, Philadelphia 34, Pa.

Warehouses: Paterson, N. J., Chattanooga, Tenn., Charlotte, N. C.

...BUT A SERVICE RECORD WAS BROKEN TOO!

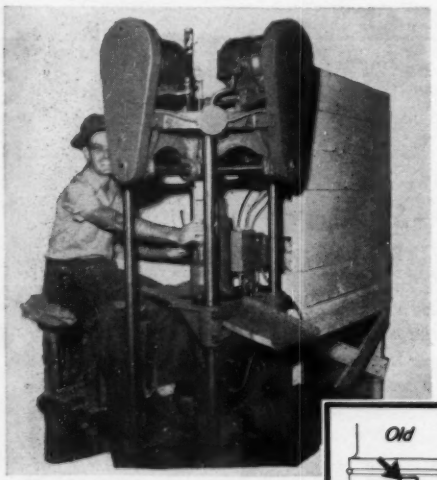
This ABC HAIRON CHECK STRAP gave 9,893 Loom Hours of service on a 32" wide X Model loom running 196 picks per minute.* It's no wonder they're the finest you can buy!

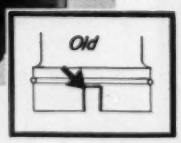
Name of mill furnished on request.

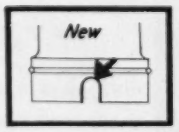
ATLANTA BELTING COMPANY
508-510 Whitehall St., S. W., Atlanta, Georgia

MONTICELLO BOBBINS

"Engineered for Service"







Newly designed Milling Machine cuts rounded top Dog Slots which have replaced all sawed Dog Slots on Monticello Card Room Bobbins. This milling cut results in a stronger Bobbin where most splits begin.

MONTICELLO BOBBIN COMPANY
MONTICELLO, GEORGIA

The BEST is Always a BARGAIN

Lane Style 20 DOFFING BASKET

For a long-wearing doffing basket to fit the individual requirements of your mill insist on the Lane Style 20. The tough, snag-proof body, built over a strong, resilient frame, gives low-cost, dependable service because of these exclusive Lane features:

- Light, strong frame of special spring steel provides resistance to permanent bending.
- Longitudinal frames are embedded full length in cross-braced shoes of close-grain hard wood.
- Lane duck, woven to exacting requirements is sewn into tough body with completely smooth inside surfaces.
- Specially tanned binding leather and short, tight stitches of long-staple cotton thread for extra wear.

To be SURE of the best,
INSIST ON *LANE Style 20*
Canvas Doffing Basket

1111

Canvas Basket Craftsmen Since 1894

Lane

THE LANE BASKET

W. T. Lane & Bros., Inc., Poughkeepsie, New York

SUPPLIERS News

WHAT THEY ARE DOING

The appointment of G. R. Easley to southern area sales manager has been announced by Acme Steel Products Division of **Acme Steel Company.** Mr. Easley will make his headquarters in East Point, Ga. Also announced were the appointments of R. C. Camp to district sales manager of the Virginia-Carolina district in Greenville, N. C., succeeding Mr. Easley, and J. R. LeMaster to district sales manager of the mid-south district in New Orleans, La.

American Cyanamid Co. has appointed Ernest K. Hunt, former advertising manager of the organic chemicals and pigments divisions, public relations manager. H. Gillespie Smith has been appointed branch manager of the new Atlanta sales office of the Dyestuff Department. His

Mr. Hunt

Mr. Smith

duties will include direction of sales in the southeastern area. The recently opened Southeastern Department sales office, including laboratory and warehouse facilities, will be located in American Cyanamid's Atlanta building.

American Resinous Chemicals Corp. has completed a program of remodeling affecting all their laboratories at the Peabody plant.

American Supply Company announces that they are now authorized representatives of the American Durafilm Co. for the application of Teflon and other coatings. * * * They are also authorized representatives of the Porta-Cable Manufacturing Co. for the sale of portable metal-cutting band saws.

New officers were elected for the **American Textile Machinery Association** at their recent annual meeting: W. Frank Lowell, Saco-Lowell Shops, president; James H. Hunter, James Hunter Machine Co., vice-president; Samuel F. Rockwell, Davis & Furber Machine Co., re-elected

Mr. Lowell

treasurer; and Mrs. Mildred Barnwell Andrews, executive-secretary. Mr. Lowell succeeds Frederic W. Howe of Crompton & Knowles Loom Works, who had served two terms as president of ATMA.

Walter P. Hope has been appointed southeastern sales representative of **Anheuser-Busch, Inc.,** and will operate out of headquarters in Columbus, Ga.

Newly appointed sales representative of the **Atlanta Paper Co.** in the Greater New Orleans area is H. Robert Corder, formerly with the C. Horton Smith Co., Inc.

Atlas Powder Co. announced the opening of new general offices at Concord Pike and New Murphy Road, Wilmington, Del., in a new building of its own which provides badly needed additional space.

Karl M. Currier has been appointed director of the Textile Research Department, **American Viscose Corp.,** succeeding the late E. S. Kennedy. F. Lawrence Rapp has succeeded Joseph L. Hunter as a Filatex salesman. Mr. Hunter was recently transferred to the company's Charlotte, N. C., sales office in the rayon staple sales department.

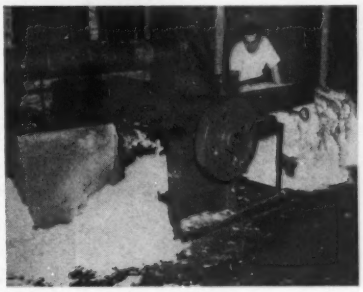
New title of **The Barry Corp.** is **Barry Controls, Inc.,** adopted as a more accurately descriptive name for

THERE'S A

TAYLOR-STILES CUTTER for EVERY CUTTING NEED

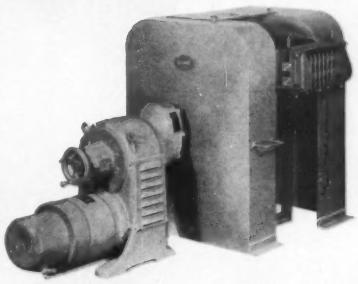
For Thread Waste

Cuts all kinds of tangled and mixed thread waste.



Staple Cutting

This Machine cuts tow and similar forms of filament into uniform particles to make flock at rates of 2400 cuts per minute.



Tow Cutting

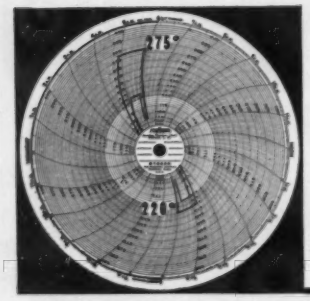
Cuts nylon and other sliver accurately into 2" lengths. Easy to operate and maintain.

Send for descriptive folder of these machines.

TAYLOR-STILES & Company

204 Bridge Street, Riegelsville, New Jersey

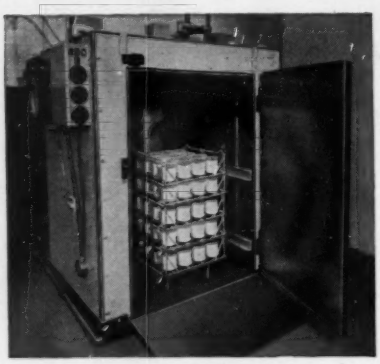
Operation over a Wide Range of Temperatures



for all Textile Fibres!

"H-W" CONDITIONER®

see this latest type



Booths 151 & 152
at the
KNITTING ARTS EXHIBITION
Atlantic City Auditorium
Atlantic City, New Jersey
April 25-29

Arranged to

- **PREHEAT**
- **CONDITION**
- **EXHAUST or DRY**

at end of operating period

The Industrial Dryer Corporation
STAMFORD, CONN.

US RUBBER

MIRATEX...

the world's most famous elastic yarn—made in a complete range of sizes and tensions for knitting, weaving or shirring elastic fabrics.

MIRATRON...

the first extruded latex thread—long a favorite for all types of webbing. Available in regular and in the heat-resistant compound pioneered by U. S. Rubber to meet postwar laundering requirements.

MIRASPUN...

the supersoft, superfine elastic yarn—developed and made only by United States Rubber Company, vital for knitting or weaving the lightest and sheerest of fabrics.

REVTEX...

"U. S." trademark for one of the original cut-rubber threads—used for many generations by industry in all kinds of narrow elastics. Also available in the heat-resistant compound.

For Further Information Write

UNITED STATES RUBBER INTERNATIONAL
159 East 42nd Street, New York 17, N. Y.

SUPPLIERS News
WHAT THEY ARE DOING

the company's expanding product line.

Julian T. Chase, resident manager for **National Aniline Division,** Allied Chemical & Dye Corp. at Charlotte, N. C., has retired after fifty years of continuous service in the dyestuffs industry. Mr. Chase was honored by a testimonial dinner given by his associates at the Hotel Barringer and was presented with a silver tea service as a memento of his long tenure. He was appointed resident manager at Charlotte for National Aniline Division in 1934, and continued actively in that position until he retired. * * * John K. Boykin has been named resident manager at Charlotte, N. C., succeeding Mr. Chase. Mr. Boykin joined National Aniline Division as a dyestuffs technician at the Charlotte Technical Service Laboratory in 1946 and was appointed resident manager at Atlanta, Ga., in 1953. Mr. Boykin will be succeeded as resident manager at Atlanta, by T. M. Ferguson who has been in charge of the National Aniline Division Technical Service Laboratory there. Prior to joining National Aniline, Mr. Ferguson was for many years superintendent of dyeing for Riegel Textile Corp.

Appointment of Norman Bush as sales representative to cover the Middle Atlantic, Middle West, and

Mr. Bush

southern states for the **Benjamin Booth Co.** was announced recently. He was formerly with the Bush Woolen Mills.

Former executive vice-president Douglas C. Lynch has been named president of **Brush Electronics Co.**

Arrangements for the sale and servicing of textile finishing machinery made in Germany by **A. Monforts Maschinenfabrik,** have been announced by **H. W. Butterworth & Sons Co.,** machinery builders, and **Texplant Corp.,** machinery importers. Machinery covered by the agreement includes nappers, air drying equipment, and cloth room machinery. Air drying machinery made by Monforts includes curing ovens, tensionless dryers, and printing dryers. Monforts makes grey room machinery for cropping, brushing, and spraying, and finishing machinery for rolling, folding, doubling, and hooking.

William F. Welch has joined the staff of the Chemical Products and Materials Development Division of

Mr. Welch

the **Goodyear Tire & Rubber Co.,** and will handle development and customer service work involving the application of Chemigum latexes to textile fabrics.

George Bowen has been named manager of the advertising department of **Robert Gair Co., Inc.,** manufacturers of folding cartons, paperboard, and shipping containers.

Paul J. Pernice has been named to head up the Portland, Ore., office of **General Dyestuff Co.** and Antara Chemicals, sales divisions of General Aniline & Film Corp. He will cover the Oregon, Washington, and Idaho territory.

Greensboro Loom Reed Co., Greensboro, N. C., has completed and put into operation a 6,000-sq ft hard industrial chromium plating plant.

The office of **Hartford Machine Screw Co.,** Southern Division, has been moved from the Capers Building, Greenville, S. C., to the company's building, located on White Horse Road-North, approximately 5½ miles from town.

Dr. James T. Eaton has been elected vice-president in charge of

HOW ANDERSON SHIELDS INCREASE SPINNING ROOM EFFICIENCY

Spinning rooms using Anderson Shields save time and money, and prevent disruption when unnecessary breaking, chipping, and splitting of bobbins and spools is avoided. In a year's time these items alone can amount to a surprising sum . . . Insist on Anderson and get the best protection metal shields afford . . . Watch your spinning room efficiency increase!

TEXTILE SHIELD CO., INC.

Metal Protection for Wood Turnings

J. N. ANDERSON, *Treas.*

LAWRENCE, MASS., U.S.A.

HERE'S SOME HELP YOU WILL WELCOME . . .

Each one of these books is packed with valuable facts especially selected from the pages of TEXTILE INDUSTRIES. They delve into the best methods for repairing, setting and maintaining machines plus production information that will help you operate more efficiently at all times.

CIRCULAR KNITTING PRACTICES

119 PAGES

Now is the time to get one of these wonderful books together with a new or renewal subscription to TEXTILE INDUSTRIES. Look at the titles of the first few articles in *Circular Knitting Practices . . . . :*

- Seamless Hosiery Machines
- Plant Maintenance Methods
- Storage System Reduces Seconds
- Mixed Sizes Cause Trouble in Finishing Ladies' Hosiery
- "Built-In" Perfume Boosts Hosiery Sales Appeal
- Tool for Cleaning Sinker Rings

FULL-FASHIONED HOSIERY KNITTING

91 PAGES

Matching that fine line-up are the first six articles in *Full Fashioned Hosiery Knitting . . . . :*

- Proper Lubrication is Essential
- Baskets Are For Hose Only
- Maintenance of Full-Fashioned Knitting Machines
- Handling Nylon Hosiery
- Pull Thread Eliminators
- Full-Fashioned Production Tips

USE THE COUPON ON PAGE 258

Since the contents of these books were taken from the regular issues of TEXTILE INDUSTRIES, you can readily see what a wealth of information on knitting is constantly being published.

It's hard to see how anyone concerned with knitting can pass up an opportunity like this for the low combination price of $4.00 including a full two-year subscription to TEXTILE INDUSTRIES. Use the coupon on page 258.

When a U. S. Representative visits your mill, he offers a world of useful data on MODERN traveler practice — plus the finest travelers it is possible to produce.

Prompt shipment from Providence, Greenville

U. S. RING TRAVELER CO.

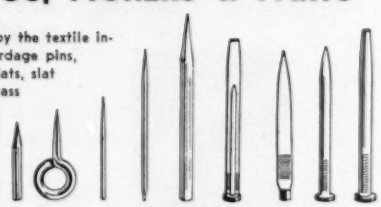
HOME OFFICE & FACTORY: PROVIDENCE, R. I.
SOUTHERN OFFICE & WAREHOUSE: GREENVILLE, S. C.

Write, wire or phone nearest office.

W. P. VAUGHAN, W. H. ROSE—Greenville, S. C.—Box 1048—Phone 3-0915
O. B. LAND—Athens, Ga.—Box 1187—Phone 478
L. H. MELLOR, JR.—Mid-Atlantic States—123 Treaty Rd.—Drexel Hill, Pa.—Phone Hilltop 6-1563
H. R. FISHER—Concord, N. C.—Box 83—Phone 2-8930
H. J. SMITH—Providence—Box 1187—Gaspee 1-0100

PINS, LAGS, PICKERS & PARTS

Everything required by the textile industry: card pins, cordage pins, doffer teeth, apron slats, slat pins, dryer plates, brass tenter plates, corrosion resistant pins.



B Co.

Volume production by precision methods permits attractive prices on all types. Prompt deliveries. W. H. Bagshaw Co., Inc. (Est. 1870) 62 Pine St., Nashua, N. H.

by BAGSHAW

KENTEX TEXTILE APRONS

Precision-built, of genuine leather, they "Fit Better—Wear Longer." Write for free samples and prices.

KENTEX APRON

TEXTILE APRON CO., East Point, Ga.

HUGH WILLIAMS & COMPANY, TORONTO, CANADA—CANADIAN REPRESENTATIVE

SUPPLIERS News
WHAT THEY ARE DOING

production of **E. F. Houghton & Co.** Joseph G. MacCracken, development engineer, is supervisor of the new development engineering department, the hydraulic development department, and the leather inspection department. New assistant manager of the textile sales development department is Jack E. McLaughlin.

General manager of the new Brinton Machine Fabrics Division of **Scott & Williams, Inc.** [formation of which was announced in TEXTILE INDUSTRIES for March, 1955, page 187], is Whitman D. Ide who has been associated

Mr. Olachea *(upper left)*

Mr. McDowell *(upper right)*

Mr. Brinton *(left)*

with Scott & Williams in sales and research capacities since 1940. David B. Brinton, formerly vice-president of Brinton Machine Co. and grandson of the founder, is sales manager. Sales engineers are George McDowell and Joseph Olachea. Mr. Olachea was formerly vice-president in charge of export sales and Mr. McDowell a sales engineer for Brinton Machine Co.

Commercial Factors Corp. has announced the appointment of four assistant vice-presidents: John C. Heney, men's wear division; William Bode, women's and children's division; Joseph Locastro, cotton and rayon division; and Alfred B. North, in charge of accounts in industries other than textiles.

Ernest H. Benzing has joined the Chemical Division sales force of the **Cravenette Co.** Mr. Benzing will be calling on manufacturers and converters, as well as dyers and finishers in New York and northern New Jersey.

Dixie Size and Chemical Co. has announced the appointment of E. A. Feimster, Jr., as finishing representative. Mr. Feimster was formerly superintendent of finishing for the Eagle & Phenix Division of Fairforest Co.

Celanese Corporation of America will shortly establish new development laboratories in Charlotte, N. C., which will serve as a link between fiber research at the Summit, New Jersey, laboratories and commercial

Mr. Cook

production at fiber plants. A 114-acre site of land, two miles from the present headquarters of the Textile Division, has been acquired for the erection of the facilities. Although the first section of the building is expected to be in operation before the end of 1955, the full extent of the undertaking will not be realized for several years. * * * William L. O'Donovan, vice-president of the company, has been named to assume new duties with the Textile Division. * * * John C. Cook was named sales manager of the New York District, Textile Division, succeeding Mr. O'Donovan. * * * George C. Hein has been named manager of Knitted Fabrics Promotion, Textile Division, succeeding Mr. Cook. * * * A. Carl Martin, Jr., has assumed the position of manager of Textile Sales Development in the Sales Department of the Textile Division. Henry A. Nowell has been named sales manager of Staple Fiber.

Methuen Card and Napper Clothing Co. has named H. B. Askew representative for Georgia and Alabama. He will work out of Griffin, Ga.

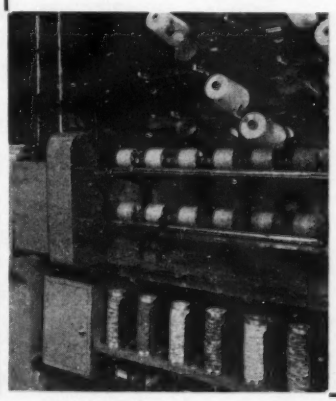
National Starch Products Inc. plans to enter immediately upon a long range program for the expansion and modernization of all company manufacturing and research facilities. The plan will provide for new and modernized equipment at the Plainfield, Chicago, and San Francisco plants; expansion and modernization at the Indianapolis plant; doubling in

COLLINS (TWO TWISTERS IN ONE)

TWO TWISTERS IN ONE

The Collins C/B Novelty Twister with DUAL-DRIVE AND ULTROHEAD FOR ALL YARNS

The Collins C/B Novelty Twister is considered TWO TWISTERS in ONE because each side of the frame can be run independently of the other side in regard to direction of twist, speed and yarn construction. This tape-driven dual-drive arrangement affords unlimited flexibility for the production of novelty and ordinary ply yarns.
The ULTROHEAD attachment is the most advanced mechanism ever developed for producing the widest possible construction variations in Splash, Nub, Seed, Boucle', and Ratine' yarns.



The Collins C/B Novelty Twister was a star performer at Atlantic City and Greenville Shows. Today, mills are daily acclaiming its outstanding cost cutting performance and wide versatility. THERE IS A COLLINS TWISTER FOR EVERY PLY YARN CONSTRUCTION.

COLLINS BROS.
MACHINE COMPANY
647 Roosevelt Ave.
Pawtucket, Rhode Island

Builders of Novelty, Ply, Big Ring, Beam, Cabling, Wet, Trap, Rayon, Paper, Glass, Sample and Special Twisters for all yarns.

CHARLOTTE CHICAGO TORONTO
est. 1866

HALLOWELL

SOLID STEEL COLLARS

Size-marked for quick identification in 42 stock sizes

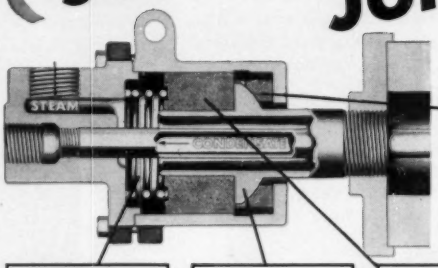
And these precision-machined solid steel collars stay put because they are held in place on the shaft by the famous UNBRAKO Self-Locking Socket Set Screw. Authorized industrial distributors carry complete stocks in sizes from 3/16" to 3" inclusive. Write for Bulletin 868. STANDARD PRESSED STEEL CO., Jenkintown 34, Pa.

HALLOWELL POWER TRANSMISSION DIVISION

SPS

JENKINTOWN PENNSYLVANIA

Only 4 internal parts in this self-supporting Johnson Joint



1. SEAL RING — of special carbon-graphite. Eliminates packing and oiling.

2. GUIDE — Also of carbon-graphite. Makes joint self-supporting.

3. NIPPLE — Rotates with roll, seals against ring.

4. SPRING — For initial seating only. In operation joint is pressure sealed.

With this 3000 Series Type S-B2 Joint, an assembly plate can be added at any time; it is used with the Johnson Syphon Elbow, to hold internal parts in position when the head is removed. Write for Bulletin No. S-2001.

The Johnson Corporation

815 Wood St., Three Rivers, Mich.

Industry's Most DEPENDABLE Belt Joints

Proven by use and comparison, Clipper Belt Hooks assure longest service. Made from uniformly high quality, fatigue resisting wire produced exclusively to meet our rigid specifications. For easy application and maximum uninterrupted service, use GENUINE Clipper Belt Lacers. There is a type and size for your needs.

Ask your Industrial Distributor for CLIPPER Products.

No. 9 Portable Lacer

CLIPPER BELT LACER CO.

Grand Rapids 2, Michigan

COTTON YARNS

Knitting and Warp

4's to 30's — Single and Ply

Uniformity

Carded — Combed

COMER-AVONDALE MILLS, INC.

Boston — Chattanooga — Chicago — Charlotte — New York
Philadelphia — Reading

representing

AVONDALE MILLS, Sylacauga, Alabama

COWIKEE MILLS, Eufaula, Alabama

INDUSTRIAL ENGINEERS

SPECIALIZING IN TEXTILES FOR OVER ONE-THIRD OF A CENTURY

PAYROLL CONTROLS
WORK LOAD STUDIES
COST REDUCTION REPORTS
COST SYSTEMS — SPECIAL REPORTS

RALPH E. LOPER CO.

GREENVILLE, S. C. — FALL RIVER, MASS.

SUPPLIERS News
WHAT THEY ARE DOING

size of Alexander Research Laboratory, Plainfield, N. J.; and improvement of equipment to permit more efficient manufacture of new resin products.

New York & New Jersey Lubricant Co. has appointed Robert A. Henkel

Mr. Henkel

as sales representative in the Pittsburgh and Western Pennsylvania territory.

R. M. Hammes has been appointed general sales manager of the Niagara Filters Division and the Tolhurst Centrifugals Division of **American Machine and Metals, Inc.**, succeeding F. C. Weicker who has resigned.

Arch E. Cutting has joined **Pneumafil Corp.** as sales engineer. He was formerly associated with the Karastan Rug Division of Fieldcrest Mills, and the Uster Corp. New service engineer with the company is Gordon A. Gatlin, who was recently associated with the Patent Scaffolding Co. and prior to that with the Highland Park Manufacturing Co.

Everglaze Marketing Division has moved its New York office to 1430 Broadway, New York 18, N. Y.

Lawrence Katz has been elected president of **Fidelity Machine Co.** to succeed recently retired president Joseph P. Vogt. Mr. Vogt will remain a member of the board.

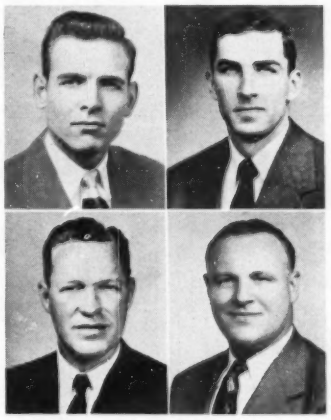
Foster Machine Co. has appointed Ernest P. Dodge southern manager. Mr. Dodge, who has been with the company since 1923, is located at Foster's Charlotte, N. C., office and is in charge of sales and service in the southern area.

The Micro Switch Division of **Minneapolis-Honeywell Regulator Co.** has opened a sales and engineering office in Charlotte, N. C., Donald S. Schultz has been transferred from Philadelphia to head up the new office.

Textile Machine Works announced acquisition of the Keller Machine Co., a company engaged in the reconditioning and servicing of knitting machines which hitherto did not come within the scope of Textile's operations. The Keller Machine Co., Inc., as this company will henceforth be identified, repairs, reconditions, and manufactures machines for knitting men's argyle socks and was purchased by Textile from B. Frank Coile, its owner, who will continue as manager.

Personnel changes at **Union Special Machine Co.** include: retirement of Grover C. Cooper as representative in North and South Carolina, after forty years with the company, with Merrit M. Ambrose being appointed his successor in these states; new assistant to Mr. Ambrose is Clarence A. Page, junior representative in the area; representative appointed in the Phil-

Mr. Ambrose Mr. Nusbickel



Mr. Page Mr. Price

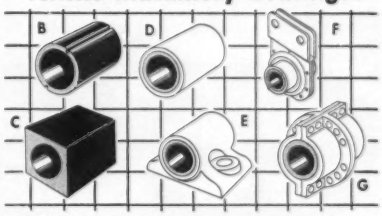
adelphia area is Edward M. Nusbickel; and Walter J. Price has been transferred to special service work in the Philadelphia office. * * * The third and latest addition to Union Special's plant at Huntley, Illinois, has been completed. The new addition comprises 65,000 sq ft of space and makes possible the assembly of a complete line of Union Special machines. Previously, most of the production at Huntley was confined to manufacturing lockstitch machines. * * * The Atlanta branch office of Union Special has completed its move into new quarters at 81 Peachtree Place, N.W.

Westinghouse Electric Corp. has announced the creation of a new dis-

GRAPHALLOY
BUSHINGS

OPERATE DRY or SUBMERGED

The IDEAL textile machinery bearings!



...self lubricating
...contain NO OIL

The GRAPHALLOY process was patented 40 years ago and the name GRAPHALLOY has been our copyrighted trademark since that time. While this company has been selling GRAPHALLOY for the past 40 years, recent developments have added materially to its properties.

... use GRAPHALLOY BUSHINGS for TROUBLE-FREE OPERATION in the following TEXTILE equipment!

BLEACHING	DYEING	NEUTRALIZING	SOAPING
CARBONIZING	EXPANDING	PICKING	SPINNING
CONDITIONING	FINISHING	PRESSING	STEEPING
CRABBING	FULLING	SCOURING	WASHING
DECATING	GYRATING	SINGEING	WEAVING
DRYING	MERCERIZING	SLASHING	WINDING

GRAPHALLOY BUSHINGS cut TEXTILE manufacturing costs in these ways:

- ELIMINATE OIL and OILING SCHEDULES
- PREVENT OIL AND GREASE SPOTS ON FABRICS
- AVOID WEAR ON SHAFT AND BUSHING FROM LINT AND DUST GATHERED BY OIL FILM
- OPERATE WITHOUT ATTENTION IN "INACCESSIBLE" LOCATIONS
- REDUCE FIRE HAZARD
- HAVE LONG LIFE
- EXCEL WHEN SUBMERGED...AS IN WASHING, BLEACHING, DYEING, CARBONIZING
- WITHSTAND HIGH TEMPERATURE (to 700°F) AS IN DRYERS, OVENS, MANGLES, and in ROTARY STEAM JOINTS

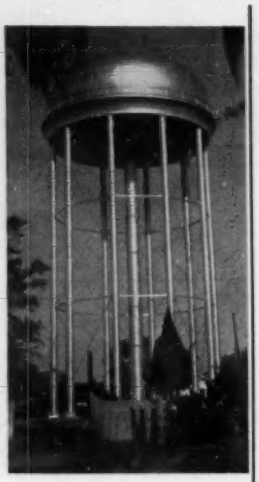
Use our 40 years of bearing experience

GRAPHITE METALLIZING CORPORATION
1069 NEPPERHAN AVE. • Yonkers, New York

Please send GRAPHALLOY BUSHING literature and Inquiry Form 107A

NAME & TITLE
COMPANY
STREET
CITY ZONE STATE

A CENTURY OF EXPERIENCE IN TANK DESIGN



● Established in 1854, COLE elevated tanks have provided a dependable water supply for mills and communities.

COLE quality is assured by careful, experienced designing and watchful supervision from blueprint to finished tank.

Send us your inquiries for tanks from 5,000 to 2,000,000 gallons—stating capacity, height to bottom, and location.

●

Write for latest Cole catalog—*Tank Talk*.

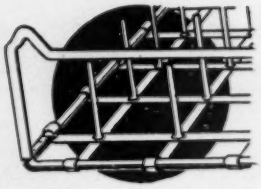
●

R. D. COLE

- TANKS
- TOWERS
- CYLINDERS
- VESSELS
- STANDPIPES

Manufacturing Co., Newnan, Ga.

Bobbin Racks Cleaned 100% Without Brushing



Less than 10 minutes is all it takes to clean cadmium metal racks used for transporting bobbins of yarn about the mill. High humidity causes lint and dust to collect on racks and because of their construction, manual brushing is a time-consuming operation. The right method is as easy as . . .

- **A—Immerse in solution of Oakite Composition No. 8 mixed with kerosene.**
- **B—Pressure-spray rinse.**
- **C—Hot-air dry.**

Soils are removed 100% without manual brushing. This is just one of the many textile cleaning problems that Oakite materials and methods are overcoming. The FREE handbook, Textile Mill Cleaning Guide, gives thorough and economical solutions to many others. Get a copy today, write: Oakite Products, Inc., 26C Rector Street, New York 6, N. Y.

SPECIALIZED INDUSTRIAL CLEANING

OAKITE

TRADE MARK REG. U.S. PAT. OFF.

MATERIALS • METHODS • SERVICE

Technical Service Representatives in Principal Cities of U. S. & Canada

For Nearly Half A Century

• • • • we have been printing Textile Industries and other W. R. C. Smith Publications in our growing plant which is today one of the South's largest, leading and most progressive printing organizations.

L. A. LEE Company, Inc.

DALTON, GEORGIA

Printers and Publishers

Control MAXIMUM PRODUCTION

with G. S. HAND TACHOMETERS *and* SPEED INDICATORS

1% Accuracy for any range from 30 to 100 000 RPM or surface speed.

Antimagnetic durable mechanism; Efficient repair service at moderate charges.

IDEAL FOR MOTORS - SHAFTS - SPINDLES - LOOMS - TURBINES - FOR TEXTILE AND POWER PLANTS

WRITE FOR ILLUSTRATED FOLDER

GEORGE SCHERR CO., INC.

200-L LAFAYETTE ST. • N.Y. 12, N.Y.

CONNOR "Laytite"

HARD MAPLE, BIRCH and OAK FLOORING in

- ► Regular Strip
- ► Continuous Strip
- ► Assembled Block
- ► Laminated Plywood Block

OUR SPECIALTY — Hardwood flooring for textile industries

CONNOR LUMBER & LAND CO.

Telephone 2-2091

P. O. BOX 810-1 — WAUSAU, WISCONSIN

trict, the Carolinas, within the southeastern region. It includes North and South Carolina and has headquarters in Charlotte, N. C. J. H. Reeves, Jr., is manager of the district. C. Y. House, Jr., becomes manager of the Greenville branch office, the position vacated by Mr. Reeves.

H. F. Livermore Corp. has announced the appointment of Harold C. Robinson as sales representative in the Carolinas and Virginia. Mr.

Mr. Robinson

Robinson was formerly general overseer of weaving at Bachmann Uxbridge Worsted Corp., Talladega, Ala.

Livingstone Coating Corp. has been appointed southeastern distributor for the Sealube Co.'s complete line of corrosion resistant materials. The territory includes Virginia, North and South Carolina, Tennessee, Georgia, Alabama, and Florida.

The Trust Company of Georgia has announced the promotion of John S. Evans to assistant vice-president; John M. Crevis to assistant comptroller; Samuel A. Tinkler, Jr., to assistant trust officer; and William C. Henry and James E. Ledbetter to assistant secretary.

Refined Products Corp. has appointed John G. Gellene to its sales and technical service department.

James Talcott, Inc., announces that Joe B. Simpson, Jr., of Charlotte, N. C., has recently been appointed a regional representative. Mr. Simpson formerly owned and operated the Joseph B. Simpson Co., yarn brokers.

William F. Bode has been named general manager of the **Selig Co.** Mr. Bode had been advertising manager with the company since 1947.

Standard Pressed Steel Co. has taken possession of the neighboring 100,000-sq-ft plant of the Harry A.

Are You Getting a Fair Day's Work for a Fair Day's Pay?

As Production Engineers we specialize in the utilization of

LABOR—EQUIPMENT—MATERIAL

Our list of clients reads like the Blue Book of American Manufacture, and in our files are many expressions as to our service and results accomplished, like the following:

"They increased the effectiveness of our plant very much and we are well pleased with the results."

AN IMPORTANT MANUFACTURER OF COTTON YARNS

Write for a free copy of "Labor and Management Benefit by Industrial Engineering Principles," and our booklet "A Fair Day's Pay and in return A Fair Day's Work".

AMERICAN ASSOCIATED CONSULTANTS, Inc.

D. S. KEOGH, President — H. B. CRAFT, Vice President and Manager of Operations

250 PARK AVENUE, NEW YORK 17, N. Y. — GRANT BUILDING, PITTSBURGH, PA. — 30 CAMDEN ROAD, ATLANTA, GA.

Type "S" ROTARY UNION

The ROTARY UNION* is Self-Adjusting to Pressure

The precision mechanical seal of the ROTARY UNION is designed so that the pressure is automatically increased or decreased in proportion to the increase or decrease of the fluid pressure of the application. This assures maximum flexibility and longer sealing service. The original pressure of the bellows is pre-set to maintain a tight seal when the unit is not in action.

Hundreds of mills have standardized on the ROTARY UNION for their slashers, dry cans, calenders, embossers, or printing machines because of ROTARY UNION service and economy. Order a set and test them for yourself, or write Dept. 4T for our catalog.

Permits Field Repair

*Trade Name — Patented

"Where *Good Connections* Count" ®

Baltimore, Camden, N. J., Cleveland, New York, Chicago, Los Angeles, Providence, Montreal, Toronto

PERFECTING SERVICE CO.
(Home Office and Factory)
332 Atando Ave. Charlotte, N. C.

CLASSIFIED ADS

BUSINESS—EMPLOYMENT—EQUIPMENT—PROFESSIONAL CARDS—OPPORTUNITIES

CLASSIFIED RATES

Rates are net, payable in advance each month. Page is 3 columns, 10 inches deep—30 inches to page. Space measured by even inch vertically by 1, 2 or 3 columns in width. Column width 2¼ inches.
Transient rate for display classified, $16.00 per inch.
Contract rate for space within 12 months period as follows:
12 inches ----------$12.00 Per Inch.

POSITION WANTED: 20c per word per insertion; minimum charge $4.00 Cash with order. Box Number address care of TEXTILE INDUSTRIES, 806 Peachtree St., N.E., Atlanta 5, Ga., count as eight words. Advertisements for help wanted, equipment for sale, for rent or wanted, and professional cards are accepted at display rates only.

ENGINEERS

Chemical & Textile

IMMEDIATE

OVERSEAS ASSIGNMENTS

with

Celanese

for

PRODUCTION STAFF

These are permanent positions with excellent future potential for individual growth in a leading organization with diversified activities in the U. S. and abroad. Present openings are in Celanese's yarn plants in Latin America.
The positions require graduate Chemical or Textile Engineers, age to 40, preferably with experience in the manufacture of filament yarn and staple.
Please submit complete resume, including salary requirements, to Personnel Dept.

CELANESE CORP. OF AMERICA

P. O. Box 1414, Charlotte, North Carolina

CONFIDENTIAL EMPLOYMENT SERVICE

For textile mills, also for merchandising, styling and selling. We invite correspondence with executives seeking employment. If you are available for a good paying position, it will pay you to have your application in our files. We make no charge unless you accept employment through us. Negotiations are confidential.

CHARLES P. RAYMOND SERVICE, INC.

Phone: LIberty 2-6547
294 Washington St., Boston 8, Mass.
Over 55 Years In Business

SUBSTANTIAL WELL-FINANCED TEXTILE OPERATION IN PENNSYLVANIA REQUIRES FABRIC DEVELOPMENT SUPERVISOR WITH GOOD ACADEMIC BACKGROUND AND MILL EXPERIENCE. AGE 30 TO 35. PLEASE SUBMIT COMPLETE RESUME. Reply to Box 692, TEXTILE INDUSTRIES, 806 Peachtree St., N.E., Atlanta 5, Georgia.

POSITION WANTED * TEXTILE TECHNOLOGIST, B. S. WITH HONORS, UNIVERSITY OF MANCHESTER, TWO YEARS' PRACTICAL EXPERIENCE, WEAVING, SPINNING, IN EUROPE, GREAT BRITAIN. EXCELLENT REFERENCES. ANY LOCALITY ACCEPTABLE. REPLY TO BOX 687, TEXTILE INDUSTRIES, 806 Peachtree St., N.E. Atlanta, Georgia.

WE HAVE

AT THIS TIME SEVERAL EXPERIENCED MEN WITH PROVEN RECORDS AVAILABLE FOR NEW CONNECTIONS IN COTTON, WOOL AND SYNTHETIC MILLS. FULL INFORMATION ON REQUEST AND IN STRICT CONFIDENCE.

FORTUNE PERSONNEL SERVICE
18 East 41st St., New York, N. Y.
PHONE MU 5-1965

GUARANTEED USED BOBBINS

Twister Bobbins for 4" Ring Twisters
Twister Bobbins for 4½" Ring Twisters
Many styles 8" and 8-3/4" Quills
Send us samples of what you need.

CHARLES G. STOVER COMPANY
West Point, Ga.

Position wanted as development, design or plant engineer with textile manufacturer or textile machinery manufacturer. Excellent experience and proven ability in the development, design, installation and operation of textile equipment in most phases of textile manufacturing. Have held responsible positions requiring administrative and supervisory capabilities. Reply to Box 690, TEXTILE INDUSTRIES, 806 Peachtree St., N. E., Atlanta, Ga.

POSITION WANTED

OVERSEER OF COTTON SPINNING OR TWISTING. OVER TWENTY-FIVE YEARS EXPERIENCE AS OVERSEER ON COTTON AND SYNTHETIC BLEND SPINNING. Reply to Box 691, TEXTILE INDUSTRIES, 806 Peachtree St., N. E., Atlanta 5, Georgia.

WANTED

SALESMAN TO SOLICIT FOR YARN DYE HOUSE EITHER FULL OR PART TIME. Reply to Box 694, TEXTILE INDUSTRIES, 806 Peachtree St., N. E., Atlanta 5, Georgia.

TECHNICAL DIRECTOR

TEXTILE ENGINEER WITH B.S. AND M.S. DEGREES AND 17 YEARS OF EXPERIENCE INCLUDING SPINNING AND WEAVING PRODUCTION, TECHNICAL SALES, MARKET DEVELOPMENT AND RESEARCH MANAGEMENT. EXPERIENCE WITH ALL MAJOR FIBERS. A SPECIALIST IN SYNTHETICS. PRACTICAL AND SCIENTIFIC KNOWLEDGE OF ALL PROCESSING FROM SPINNING TO FINISHED TEXTILES. INVENTOR AND TECHNICAL AUTHOR. NOW IN A RESPONSIBLE MANAGEMENT POSITION. Reply to Box 693, TEXTILE INDUSTRIES, 806 Peachtree St., N. W., Atlanta 5, Ga.

W. R. C. Smith Publishing Co.
Dept. T-4B
806 Peachtree St., N. E.
Atlanta 5, Georgia

Please enter / renew my subscription to TEXTILE INDUSTRIES for two years.

Name _____ Title _____

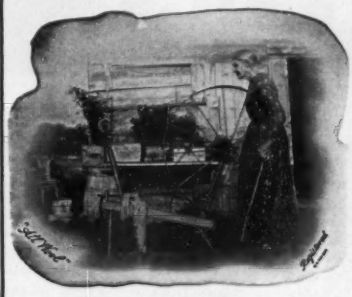
Address _____

City _____ State _____

Company Name _____

☐ **Enclosed find $3.00** ☐ **Bill me for $3.00**

EDWARD H. BEST & CO.
Est. 1888 Inc. 1901



KNOXALL
ROLLER CLOTH
CLEARER CLOTH
ENDLESS CLEARERS
PLUSH

MASS., Boston — Office
210 Lincoln Street HUbbard 2-4450

NORTH CAROLINA
DONALD C. O'HAIR P. O. Box 8254
Charlotte, N. C. Charlotte 4-5601

GEORGIA
W. C. HAMES 185 Pinecrest Ave.
Decatur, Ga. Dearborn 5974

Everything's New at
DINKLER HOTELS

THE DINKLER PLAZA
Atlanta
THE DINKLER-TUTWILER
Birmingham
THE DINKLER-JEFFERSON DAVIS
Montgomery
THE DINKLER-ANDREW JACKSON
Nashville
THE ST. CHARLES
New Orleans

Teletype Service
to all Dinkler Hotels

DINKLER HOTELS
CARLING DINKLER, *President*
CARLING DINKLER, JR., *Vice President*

SUPPLIERS News
WHAT THEY ARE DOING

Prock Cabinet Co., acquired under a recently concluded purchase agreement.

Effective April 15, 1955, **Southern Textile Machinery Co.,** manufacturer of hosiery looping and inspection machinery, will provide its own sales and service force for the knit goods manufacturing industry, according to T. A. Paxton, president.

Joe Callicott of **Standard Chemical Products, Inc.,** has been transferred to Greensboro, N. C. He will replace

Mr. Callicott

Edmund Pickup who has been assigned to the company's new plant at Charlotte, N. C.

Carl Chalmers has been promoted to the position of assistant sales manager of the Industrial Products Division of **Texize Chemicals, Inc.** He has been associated with Texize for the past six years.

Herman S. Boyd, Jr., of Clinton and Laurens, S. C., has been named a southern representative of **Saco-Lowell Shops,** specializing in repair parts only. The appointment of Mr. Boyd marks a further phase in the

Mr. Boyd

stepped-up replacement parts program which Saco-Lowell inaugurated last fall. Mr. Boyd has for the past five years been connected with the Clinton and Lydia Cotton Mills, Clinton, S. C. He will call on mills in the area covered by the Charlotte office.

Call MILTON for dependable BEAMS
Light Metal featuring continuous welded construction

NYLON & RUBBER YARN BEAMS

FORGED HEADS
RIGID BARRELS

Forged heat-treated aluminum alloy heads and extra heavy wall barrels designed to withstand extreme pressures of monofilament; fine denier; low-turn nylon; and rubber yarns. 13¾" and 21" diameter heads.

SECTION BEAMS

Adaptable to all makes of warpers. Cast aluminum alloy heads and extruded aluminum barrels cannot shrink, swell, splinter or distort.

STEEL BARREL
WARP BEAMS
for BROAD, NARROW FABRIC, RIBBON, VELVET AND CARPET LOOMS

BROADLOOM BEAMS

for C & K and Draper Looms

Shown above is Milton's stud construction (also made with cast iron hubs).

RIBBON LOOM BEAMS

Adjustable head with fixed shaft, or fixed head with removable shaft.

SEE THEM AT THE SHOW

MILTON MACHINE WORKS
INCORPORATED
DESIGNERS • ENGINEERS • MANUFACTURERS
MILTON • PENNA.

ADVERTISER'S INDEX

A

Abbott Machine Co. 43
Advertising Council, Inc. ..... *
Air-Perme-Ator Mfg. Co. .....Front Cover
Aldrich Machine Works 25
Allis-Chalmers Mfg. Co. 202, 203
Althouse Chemical Co. 42
Alvey Conveyor Mfg. Co. 6
American Air Filter Co. 262
American Aniline Products, Inc. ..... *
American Associated Consultants, Inc....257
American Cyanamid Co.
Textile Resins Division 49
American Lava Corp. 178
American Moistening Co. 84
American Monorail Co., Inc. 140
American Pulley Co. 73
American Red Cross ..... *
American Steel & Wire Co. ..... *
Arkansas Company Inc. 34
Armstrong Cork Co. 40, 41
Ashworth Bros. Inc. 193, 194
Askania Regulator Co. 26
Atkinson Haserick & Co. ..... *
Atlanta Belting Co. 248
Atlantic Steel Co. ..... *

B

Bagshaw Co., Inc., W. H. 252
Bahnson Co. 78
Barber-Colman (Textile Div.) 232
Barber-Colman Co.
(Automatic Controls Div.) ..... *
Becco Chemical Division ..... *
Bendix Aviation Corp.
(Eclipse Mach. Div.) ..... *
Benjamin Elec. Mfg. Co. 62
Best & Co., Inc., Edw. H. 259
Bijur Lubricating Co. 22
Binney & Smith, Inc. ..... *
Birch Brothers, Inc. ..... *
Blickman, Inc., S. 46
Boger & Crawford 21
Brush Electronics Co.,
Instrument Division ..... *
Buffalo Forge Co. ..... *
Buffalo Pumps, Inc. 38
Butterworth & Sons Co., H. W. 86

C

Carrier Corporation ..... *
Carter, Inc., A. B. 154
Celanese Corp. of America &
Subsidiary Cos. ..... *
Cen-Tennial Cotton Gin Co. 152
Central of Georgia Railway
Industrial Development Dept. 94
Chemstrand Corp. ..... *
Ciba Co., Inc. ..... *
Classified Ads 258
Clayton Co., J. M. ..... *
Cleveland Tramrail Division, The
Cleveland Crane & Engr. Co. ..... *
Clinton Foods Inc. 35
Clipper Belt Lacer Co. 254
Cocker Mach. & Fdry. Co. ..... *
Cole Co., R. D. 256
Collins Bros. Mach. Co. 253
Colson Corporation ..... *
Columbia-Geneva Steel Division ..... *
Comer-Avondale Mills, Inc. 254
Connor Lumber & Land Co. 256
Continental-Diamond Fibre Co. 45
Continental Gin Company 204
Cook-P&N Mach. Co., Inc. ..... *
Corn Products Sales Co. 148
Courtaulds, Inc. ..... *
Crompton & Knowles Loom Works 11
Curlator Corp. (Textile Div.) ..... *
Curtis & Marble Machine Co. ..... *
Cutler-Hammer, Inc. 218
Cyclone Fence Dept.
American Steel & Wire Div. 24

D

Darnell Corp., Ltd. ..... *
Dary Ring Traveler Co. ..... *
Dayton Rubber Mfg. Co. 32, 33
Diehl Mfg. Co. .....Second Cover
Dobeckmun Co. 150
Dodenhoff Company, Inc., W. D. ..... *
Dodge Mfg. Corp. 23
Dommerich & Co., L. F. 239
Dow Chemical Company ..... *
Draper Corporation 1, 53, 54
Dronsfield Bros. Ltd. 246
Du Pont de Nemours & Co., Inc., E. I.
(Dyestuff Div.) 55
Du Pont de Nemours & Co., Inc., E. I.
(Electrochemicals Dept.) 142
Du Pont de Nemours & Co., Inc., E. I.
(Finishes Div.) 81
Durkee Atwood Company ..... *

E

Economy Baler Co. ..... *
Emery Industries, Inc. ..... *
Engineered Plastics, Inc. 44
Exact Weight Scale Co. 246

F

Fafnir Bearing Co. 75
Fairbanks Company, The ..... *
Ferguson Gear Co. ..... *
Fidelity Machine Co. ..... *
Finnell System, Inc. 234
First National Bank of Atlanta ..... *
Fisher Mfg. Company 10
Fletcher Works ..... *
Foster Machine Co. 167
Foxboro Company ..... *
Franklin Process Co. ..... *
Freeman Co., Samuel T. 240

G

Gabb Special Products Division ..... *
Gair Co., Inc., Robert ..... *
Gaston County Dyeing Machine Co. .... *
Gastonia Roller, Flyer & Spindle Co. ... *
Gastonia Textile Sheet Metal Works ... *
Gates Rubber Co. 82
Gaylord Container Corp. ..... *
General Dyestuff Corp. 227
General Dyestuff Corp. (Antara Div.).. *
General Electric Co. ..... *
General Radio Co. ..... *
General Tire & Rubber Co.
(Industrial Prod. Div.) 46
Goodyear Tire & Rubber Co., Inc.
(Chemical Prod.) 5
Graphite Metallizing Corp. 255
Gulf Oil Corp. 67

H

Harshaw Chemical Co. 61
Hart Products Corp. 102
Hartford Machine Screw Co. ..... *
Hayes Industries, Inc. ..... *
Hayssen Mfg. Company ..... *
Heany Industrial Ceramic Corp. 224
Hermas Machine Co. ..... *
Herr Mfg. Company 85
Hillyard Chemical Co. 144
Holyoke Machine Co. 57
Hotels Dinkler 259
Houghton & Co., Inc., E. F. ..... *
Howard Bros., Mfg. Co. 74
Hubinger Co. 27
Hunter Machine Co., James ..... *
Huyck & Sons, F. C. 156
Hyatt Bearing Division 210
Hyster Company 63

I

Ideal Industries, Inc. ..... *
Ideal Mach. Shops, Inc. 12
Industrial Dryer Corp. 250
Industrial Rayon Corp. 8, 9
International Salt Co., Inc. 69, 90

J

Jacobs Northern Div., E. H. 208
Jenkins Metal Shops, Inc. 241
Jenkins' Sons, Inc., M. W. ..... *
Johnson Corp. 254

K

Keever Starch Co. 198
Kennett Equipment Co. 183
Kidde & Co., Inc., Walter ..... *
Kidde Mfg. Co., Inc. 17, 18, 19, 20

L

Lane & Bros., Inc., W. T. 248
Lanolized, Inc. 83
Laurel Soap Mfg. Co. 247

ADVERTISER'S INDEX

Lazenby & Co., F. A. ..... *
Lee Co., L. A. 256
Lincoln Engineering Co. 98
Link-Belt Co. ..... *
Livermore Corp., H. F. ..... *
Lockwood Greene Engineers 80
Logan Co. ..... *
Logemann Brothers Co. 66
Loper Co., Ralph E. 254
Louden Machinery Co. ..... *
Lunkenheimer Co. ..... *

M

Manton-Gaulin Mfg. Co., Inc. ..... *
Marquette Metal Products Co. 51
Marshall & Williams Corp. ..... *
McBurney Stoker & Equip. Co. ..... *
Meadows Mfg. Co. ..... *
Merrow Machine Co. 244
Metro-Atlantic Chemical Co., Inc. 16
Micro Switch Division
Minneapolis-Honeywell Regulator Co.. *
Miller Fluid Power Co. ..... *
Milton Machine Works 259
Monarch Elevator & Machine Co. 246
Monsanto Chemical Co. 65
Monticello Bobbin Co. 248
Morton Machine Works 60
Mt. Hope Machinery Co. ..... *

N

National Aniline Division
Allied Chemical & Dye Corp. 159
Fibers Dept. 37
National Business Publications, Inc. ... *
National Ring Traveler Co. 70
National Starch Prod., Inc. ..... *
National Tube Co. ..... *
Naugatuck Chemicals Div. 96
New Departure Div. ..... *
New England Bobbin & Shuttle Co. .... *
New York & New Jersey Lubricant Co. .. 58
Nopco Chemical Co. 71
North, Inc., Frank G. ..... *

O

Oakite Products, Inc. 256
Ohio Gear Company ..... *

P

Parks-Cramer Co. 212
Penick & Ford, Ltd., Co. ..... *
Perfecting Service Company 257
Perkins & Sons, Inc., B. F. 92
Pfister Chemical Works 30
Pick Mfg. Co. 224
Pioneer Heddle & Reed Co., Inc. ..... *
Pittsburgh Corning Corp. 13
Pneumafil Corporation ..... *
Potts Co., Horace T. ..... *
Powell Valves 100
Procter & Gamble Distributing Co. .... *
Proctor & Schwartz, Inc. 174

R

RCA Engineering Products Div. 172
Red-Ray Mfg. Co. ..... *
Reeves Pulley Co. ..... *
Reiner, Inc., Robert 176, 244
Reliance Elec. & Engineering Co. 192
Rhoads & Sons, J. E. ..... *
Richards-Wilcox Mfg. Co. 48
Ridge Tool Co. ..... *
Riggs & Lombard, Inc. ..... *
Ritz Carlton Hotel 52
Robert & Co., Associates, Inc. ..... *
Roberts Company ..... *
Rohm & Haas Co. 50
Ross Engr. Corp., J. O. ..... *
Roy & Son Co., B. S. ..... *
Royce Chemical Co. ..... *

S

Saco-Lowell Shops 36, 196
Sandoz Chemical Works ..... *
Sarco Company, Inc. ..... *
Sargent's Sons Corp., C. G. 231
Scheer Co., Inc., Geo. 256
Schlafhorst & Co., W. 7
Scholler Bros., Inc. 83
Scott Testers, Inc. 242
Scott & Williams, Inc. 39
Seydel-Woolley & Co. 28
Shell Oil Company 170
Shepard Niles Crane & Hoist Corp. .... *
Simco Company ..... *
Sims Sheet Metal Works ..... *
Sinclair Refining Co., Inc. 76
Sirrine & Co., J. E. .....Third Cover
SKF Industries, Inc. ..... *
Smith, Drum & Co. 91
Solvay Process Division, The Allied
Chemical & Dye Corp. ..... *
Sonoco Products Co. 31
Southeastern Engineering Co. 64
Southern Shuttles Div. 160
Southern States Equip. Corp. 14, 15
Southern Textile Mchy. Co. 168
Specialty Distributing Company 224
Speizman Co., Inc., Morris 180
Staley Mfg. Co., A. E. Staley ..... *
Standard Brands, Inc. 79
Standard Chemical Prod., Inc. 47
Standard Oil Company, Inc. ..... *
Standard Pressed Steel Co. 254
Steel Heddle Mfg. Co. 160
Stowe-Woodward, Inc. ..... *
Swift & Company ..... *
Synthane Corp. ..... *

T

Talcott, Inc., James ..... *
Taylor-Styles & Co. 249
Tennant Co., G. H. ..... *
Tennessee Coal, Iron and Railroad Co. .. *
Tennessee Corp. 243
Terrell Co. 59
Texas Co. 2
Textile Apron Co. 252
Textile Industries 236, 252
Textile Machine Works 104, 166
Textile Paper Products, Inc. 4
Textile Shield Co., Inc. 251
Textile Shops ..... *
Thomaston Mills ..... *
Toledo Scale Co. 29
Ton-Tex Corp. 242
Tool Service Engineering Co. ..... *
Treasury Department 238
Trico Fuse Co. 224
Truscon Laboratories ..... *
Trust Company of Georgia 180
Tull Metal & Supply Co., J. M. ..... *
Turbo Machine Co. ..... *
Twin Disc Clutch Co. 56

U

Union Special Machine Co. 181
U. S. Bobbin & Shuttle Co. 235
U. S. Ring Traveler Co. 252
U. S. Steel Corp. 24
U. S. Textile Mach. Co. 182
United Elastic Corporation 242
United States Rubber Co.
(International Division) 250
(Naugatuck Chemicals Div.) 96
Universal Winding Co. 72
Uster Corporation ..... *

V

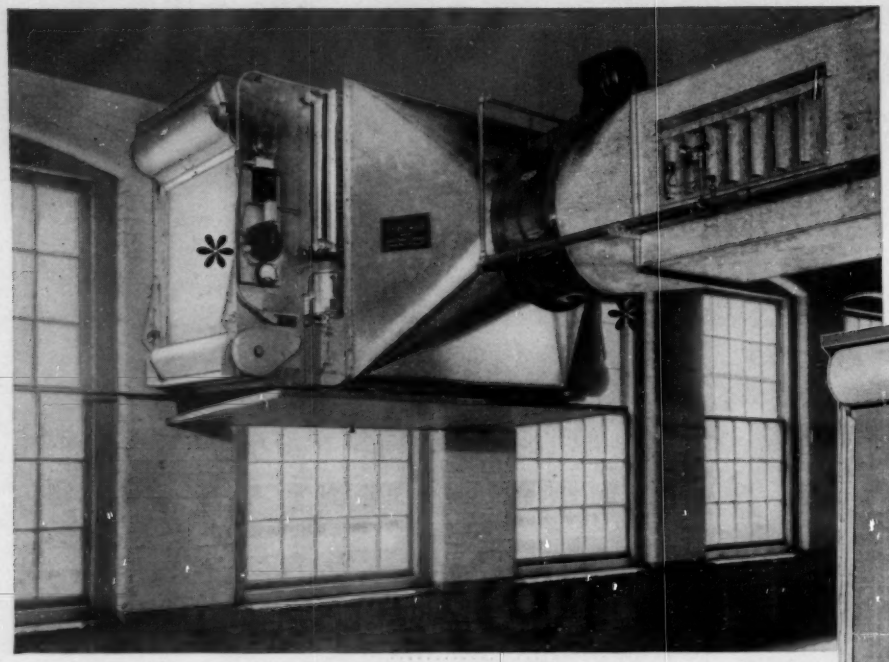
Van Vlaanderen Co. ..... *
Veeder Root, Inc. .....Fourth Cover
Vermont Spool & Bobbin Co. 68
Vickers, Inc. ..... *
Victor Ring Traveler Co. 77

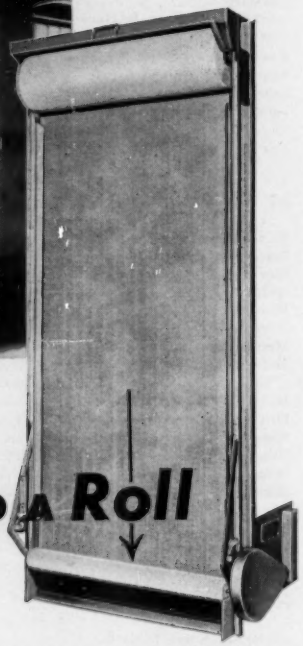
W

Wallerstein Co., Inc. 206
Want Ads 258
Watson-Williams Mfg. Co. ..... *
West Point Fdy. & Mach. Co. 228
Westinghouse Electric Corp. ..... *
Westinghouse Electric Corp.
(Sturtevant Division) 146, 147
Whitin Machine Works 200
Whitinsville Spinning Ring Co. 245
Wicaco Machine Corp. 237
Wiesner-Rapp Co., Inc. ..... *
Wildman Mfg. Co. 164
Wolf & Co., Jacques ..... *
Wonalancet Company 245

Y

Young Aniline Works 233





Auto-AIRMAT

BUNDLES LINT PROBLEMS INTO A *Roll*

Parks-Cramer Airchanger System cleans recirculated air automatically with AAF Auto-AIRMAT Filter

THE Parks-Cramer Airchanger System has established a better "working climate" for materials, machinery and operatives in textile mills. A "must" for its efficient operation, in many installations, is the removal of lint from the recirculated air. Under these conditions, ordinary screens placed over the return air openings quickly become clogged, and present a maintenance problem.

How Parks-Cramer solved the problem is pictured above. AAF AUTO-AIRMAT Filters are installed in the recirculated air opening on each side of the Airchanger unit. Now, when the lint load builds up to the danger point, the filter automatically cleans itself—and bundles up the collected material for later disposal.

AUTO-AIRMAT operation is as simple as it is effective. The AIRMAT media, installed in roll form at top of unit, becomes a moving filter curtain that is re-rolled at bottom with its lint load. Movement of curtain is entirely automatic, with clean media being introduced only in sufficient quantity to lower resistance below the established maximum.

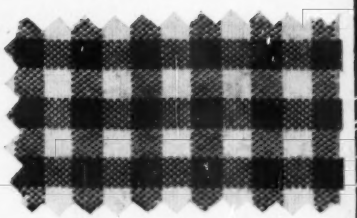
Let us show you how easy and economical it is to *bundle your lint problems into a roll.* For complete information, call your nearby AAF representative or write for AUTO-AIRMAT Bulletin 234.

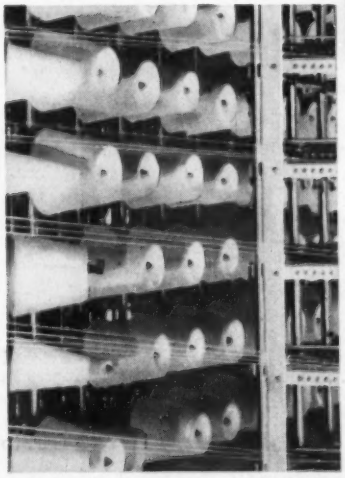
AAF

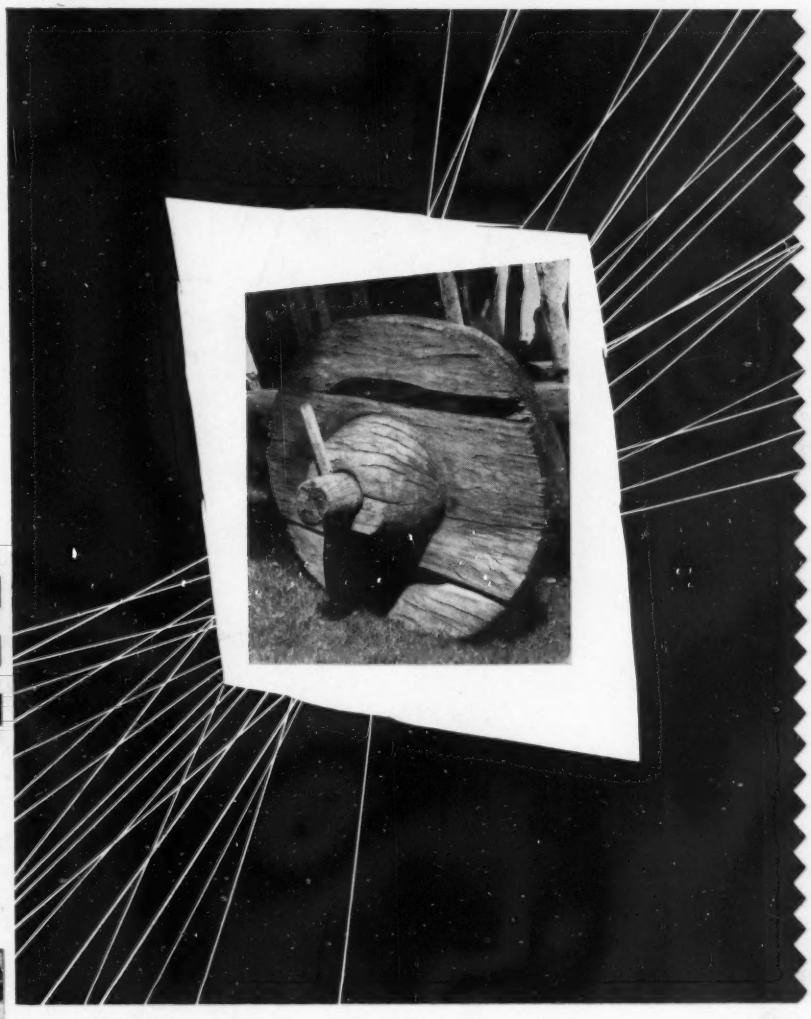
herman nelson

American Air Filter
COMPANY, INC.

American Air Filter of Canada, Ltd., Montreal, P. Q. • 275 Central Avenue, Louisville 8, Kentucky







basic engineering principle:

methods may become obsolete
good ideas never grow old

Engineers for 53 years . . . **J. E. SIRRINE COMPANY**
GREENVILLE • SOUTH CAROLINA

A DEPARTMENTALIZED ENGINEERING ORGANIZATION SERVING BUSINESS, COMMERCE AND INDUSTRY

New!

VARY-TALLY

Multiple-Unit Reset Counter

DESIGNED TO COUNT ANYTHING COUNTABLE

this new Vary-Tally can be supplied in any combination up to 6 banks high, 12 units wide, with the counting units arranged compactly on stands in tiers. Now check these special features of Veeder-Root design and construction:

- Easily Readable from any Angle . . . Bold Figures Always Centered in Window . . . No Glare . . . Figures not Covered by Fingers in Operation
- Easily Portable, yet Ruggedly Built for Long Wear
- Separate Counting Units Can be Rotated like Tires on a Car, to Distribute Wear Evenly
- All Parts Corrosion-Resistant
- Working Parts of Hardened Steel
- Operation Not Affected by Extreme Heat or Cold
- Individual Tag Above Each Counter-Window — Not Strip Tabs
- Veeder-Root Quality in Every Part

Now what's on *your* mind, that Vary-Tally can help you count? Write for news sheet and prices.

"The Name that Counts"

GREENVILLE, SOUTH CAROLINA
Box 297, Tel. Greenville 3-1371

VEEDER-ROOT INC.
HARTFORD 2, CONNECTICUT
Tel. Jackson 7-7201